FLORIDA WILDLIFE®

Volume 41, Number 1
January-February 1987

WATCH FOR THESE
SIGNS OF LIFE

When traveling on Florida's highways, be sure to watch for these "Signs of Life." Some wildlife species regularly cross highways, and they sometimes collide with man's vehicles. Slow down when you see these signs of wildlife.

FLORIDA GAME AND FRESH WATER FISH COMMISSION

FLORIDA WILDLIFE®

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Our cover photographs were taken by Lynn M. Stone.

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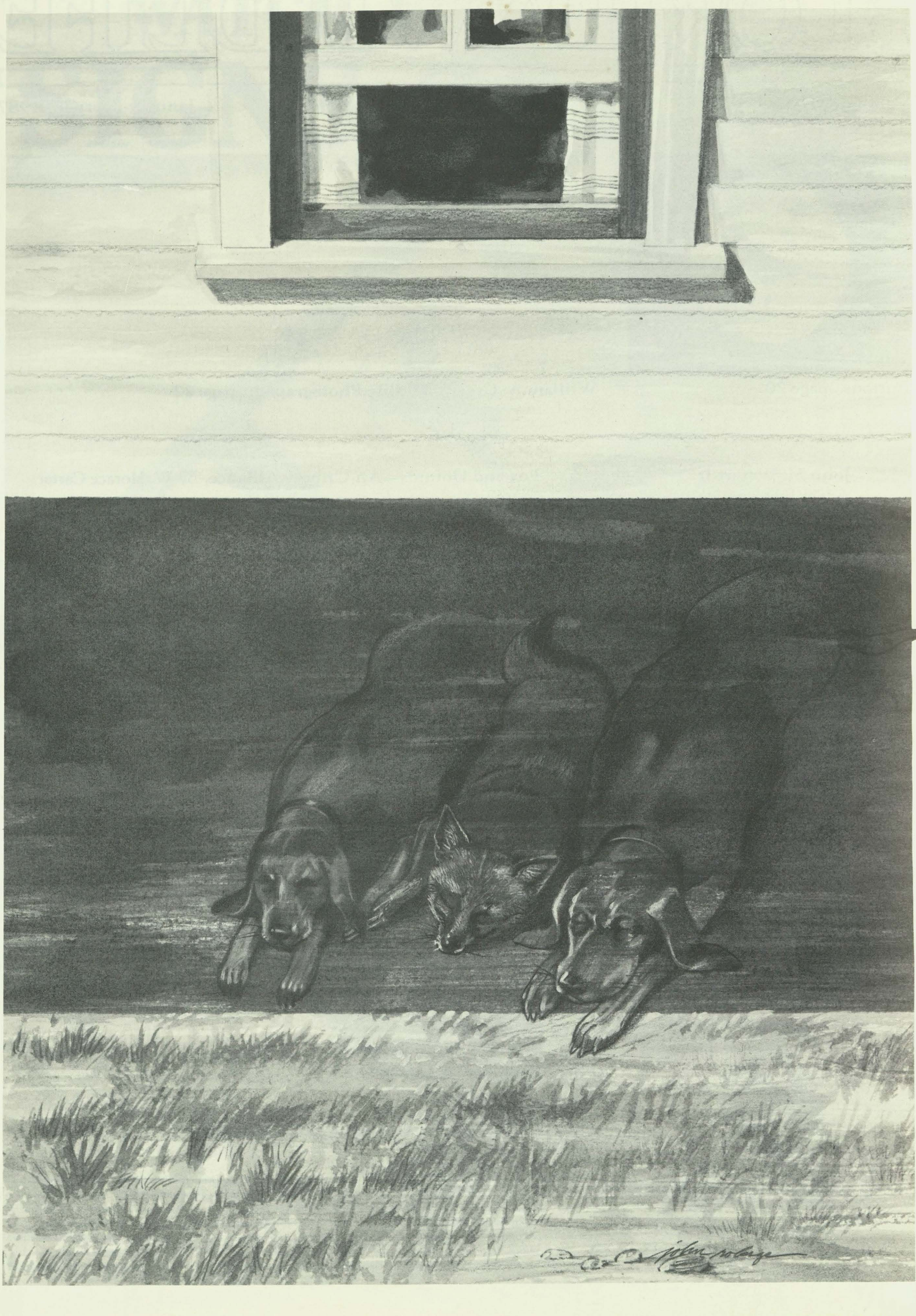


Fox and Hounds

AN UNHOLY ALLIANCE

By W. Horace Carter

Dr. John N. Hamlet died in the subtropical rain forest at Bayport, on Florida's Gulf of Mexico, three years ago. He was a great naturalist and a remarkable outdoorsman all his life. His experiences were myriad.

Dr. Hamlet headed the geographically secluded Primate Center at Prichardsville, South Carolina in 1946. There, 5,000 *cynomulgus* monkeys, which he had captured in the Phillipines, were kept for a worldwide research program which eventually led to the perfection of the polio vaccine. After he had captured the monkeys in Pacific jungles, the site for the remote South Carolina research outpost was sought out and purchased from "Lucky" Luciano by the National Foundation for Infantile Paralysis. Many diseases are communicable between the various primates, including man, so the location for the center had to be miles away from any concentration of people.

With only his wife, a few local assistants, some scholarly laboratory researchers and a couple of mongrel hounds for companionship, the project began. Dr. Hamlet cherished the closeness he had with the dogs. They "reminded him of his 14 years with the U.S. Fish and Wildlife Service (FWS)" before he was "loaned" to the Foundation for the polio vacine program, he said.

Dr. Hamlet had a trained wolf for a pet during his time with FWS. The dogs at his new home brought back memories of his early youth on a ranch outside Rapid City, South Dakota, where he grew up with the Sioux Indians after leaving a broken home. He and his Sioux playmates hunted all over the Black Hills, and by the time he was 14, he also owned some of the best wolf hounds in the territory.

He had missed having a dog during the years he relocated from place to place for FWS, and he missed having a dog later, while he was hunting the monkeys in the most remote sections of the Pacific Islands. But once he settled in South Carolina, at a base he could call home for a while, he bought an old red-bone hound and a little black and tan. The red-bone was named "Red" and didn't cost him anything. He received the old dog as a gift from one of the local hunters, after the dog hung a hind leg in a barb wire fence, mutilated a joint and a veterinarian had to amputate its leg.

He had given a man $5 for the little black and tan hound. Old crippled Red and the little black and tan female became the very best pair of hunting dogs Dr. Hamlet ever owned.

"The black and tan could out run old Red, but her nose wasn't as good," he said. "Red seemed to use all of his senses better after losing one of the legs that once made him the fastest coon dog in the South Carolina low country.

"His nose was unbelievably sensitive. He had what swamp hunters at Prichardsville called a *cold nose*. That meant he could sniff an animal track from the night before and stay with it until it became a *hot track* and eventually flush his prey."

Red was not just a *coon hound*. He was equally adept at tracking and treeing opossums or baying foxes and minks in the holes along the river banks. A hunter had to let Red know what he was searching for, but he could do this by letting Red smell a hide of the animal sought. Put a raccoon skin to his nose, and he would hunt only for coons. Mink, fox, and opossum hides would have the same result. It was uncanny the way he could pick one animal scent from another, but Red proved this ability repeatedly. ▷

The black and tan usually just followed alongside Red. She could bark and yelp and smell too, but not the same way old Red did. She was more of a follower; Red was a *born leader*.

One afternoon, William Pinckney, a Primate Center neighbor who had farmed and hunted in Beaufort County all his long life, brought a tiny gray fox to Dr. Hamlet's house. It was only a few weeks old and had probably been orphaned by some disaster. Pinckney had found it shivering in a meadow. Dr. Hamlet, then as always, had a soft spot in his heart for every living creature. He had nursed countless wild things back to health. Pinckney knew about this, and that's why he brought the little fox to Dr. Hamlet. Pinckney figured correctly that the good doctor would pamper the critter until it was well, strong and ready to roam free in the swamp lands.

"I put the baby fox in a cage near the house and kept feeding and watering it every day," Dr. Hamlet explained. "It began to grow, and soon it would eat out of my hand. It wasn't long until it was as tame as the dogs and cats around the place. In a few months, it looked almost full grown, and I figured it was time to let it loose so it could join its brothers and sisters in the swamps," he said.

"One day, I had to go into Beaufort for some groceries, so I put the little fox in a box, set it in my station wagon and headed for town. About five miles down that blacktop country road, I stopped at a particularly dense section of woodland, opened the cage and made the fox jump out. I then got back in the car and headed on to Beaufort.

"I shopped around for an hour or so, then drove back to the Primate Center. The first thing I saw when I got out of the car—carrying my bag of groceries—was the little gray fox. It was sitting on the front doorsteps, licking its front paws. My wife said the fox had come back to the house half an hour before I arrived," Dr. Hamlet recalled.

The Hamlets just smiled at each other and decided that if the fox didn't want to be wild, it could stay with them. They weren't going to cage it anymore, and it could walk out the front gate any time it wanted to leave. They continued to feed it and, for certain, it became a part of the household.

At first they tried to feed the fox in a bowl that was kept separate from the two hounds' bowls, but the fox would have none of that. The fox insisted on eating from the same dish with the hounds, and they would constantly growl and push each other around, scrapping for the food. While dogs and foxes are normally "mortal enemies," these grew to be "friends," and eventually would share the food peacefully until all three had a bellyful. As months dragged by, the three became like a family, and human visitors were surprised to witness this unusual alliance of wild and domestic animals.

"The building where my wife and I lived, at the Primate Center, was known as the *Foundation House*. It was set on piers well off the ground, and the hounds slept directly under our bedroom. When the fox was nearly grown, it decided to take up residence with the dogs and sleep with them at night. They had a kind of communal bed for a while," Dr. Hamlet explained.

"Fall arrived and the moon fulled in October that year," Dr. Hamlet recalled. "I went to bed as usual about 10:30 p.m. one night. I had not gone to sleep yet, but was dozing a little when I heard the fox get up under the house, shake itself a time or two and mosey out in the yard. It was strange behavior for the fox, before then, so I went to the window to look. The dogs hadn't moved or made a sound.

"The fox looked around the moonlit yard, then beelined for the front gate—at a rather fast trot—and was soon out of sight in the woods. I went back to bed a little confused and scratching my head.

"Thirty minutes or so later, I heard old Red stand up under the house, shake himself and growl a little, then the black and tan arose too. Moments later, I heard them shuffling along through the yard. Again I went to the window. They still had not barked or shown any sign of excitement.

"Red looked at the moon, glanced around the premises, then put his nose to the ground—where the fox had trotted a half hour earlier—and let out a long ghostly, trailing bark as he headed for the gate. The black and tan joined in the music and they left the compound barking for all they were worth, right on the trail of the little gray fox. I listened until they were completely out of earshot, probably a mile or more away. Shaking my head in disbelief, I went back to bed. My wife and I laughed ourselves to sleep at such an unusual event," Dr. Hamlet said.

"At 1:00 a.m., I heard a slight shuffling under the house in the communal bed. I recognized the noise as that of the gray fox. He was panting as he lay down, and he quickly went to sleep.

"Twenty minutes later, I heard the hounds barking on a trail, coming closer and closer. At exactly 1:30, they came through the compound gates, barking at every breath, and trailed right under the house where the fox was already asleep. They shook off the dew they had gathered from the long chase, curled up together with the fox, then the trio slept peacefully for the remainder of the night. All three seemed satisfied with their adventure, and all were 'dog tired' after the long escapade.

"That 'cat and mouse' game between the two hounds and the fox took place nightly thereafter. It was always the same. They would go to bed together, then the fox would sneak out. Half an hour later, the hounds would emerge, find the trail and off they would go on another three-hour escapade. It always ended back where it started—under our bedroom floor—where the three creatures curled up to rest and sleep together," said Dr. Hamlet.

Over time, that nightly routine got to be a little irritating to the Hamlets. Since it interrupted their nightly rest, they decided the fox would just have to go. So, when Dr. Hamlet had to make a trip to Savannah, which was a considerable distance from Prichardsville, they built a little box cage and put the fox inside before he chugged off down the highway.

About 15 miles from the Primate Center, Dr. Hamlet stopped the car, set the cage on the shoulder of the road and coaxed the fox outside, then the doctor put the box back in the car, shut the tail gate and started to drive away. For one long moment Dr. Hamlet thought about getting out, picking up the little animal, putting him back in the car and taking him home again. But remembering those nightly noises that interrupted his peaceful sleep, he drove on toward Savannah, looking back through the rear view mirror at the fox as it sat on its haunches watching the vehicle disappear.

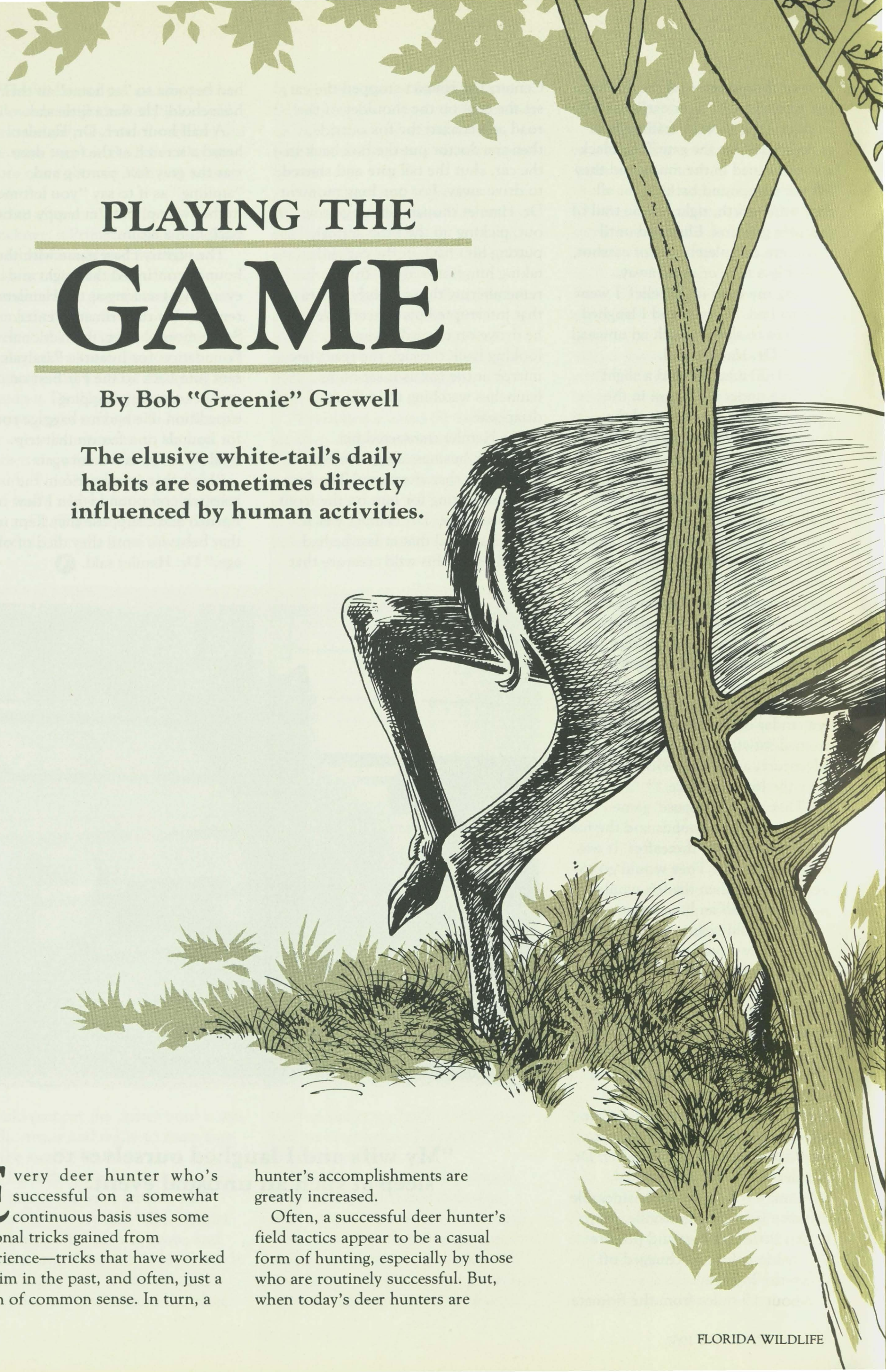
Dr. Hamlet transacted his Savannah business and returned home later that afternoon. The fox was not waiting for him on the front steps this time. Dr. Hamlet was a little chagrined that at last he had gotten rid of this wild creature that had become so "at home" in their household. He was a little sad.

A half hour later, Dr. Hamlet heard a scratch at the front door. It was the gray fox, panting and "smiling" as if to say "you left me in the swamp, but I'm happy to be back home again."

The nightly chase game with the hounds continued that night and every night as long as the Hamlets remained at the Primate Center. Some months later, the National Foundation for Infantile Paralysis sent him back to the Far East on another monkey-trapping expedition. He had no baggage room for hounds or a fox on that trip. And he never saw them again.

"I left that strange trio in the research compound when I flew to Borneo and I suppose they kept up that behavior until they died of old age," Dr. Hamlet said.

"My wife and I laughed ourselves to sleep at such an unusual event."



PLAYING THE GAME

By Bob "Greenie" Grewell

The elusive white-tail's daily habits are sometimes directly influenced by human activities.

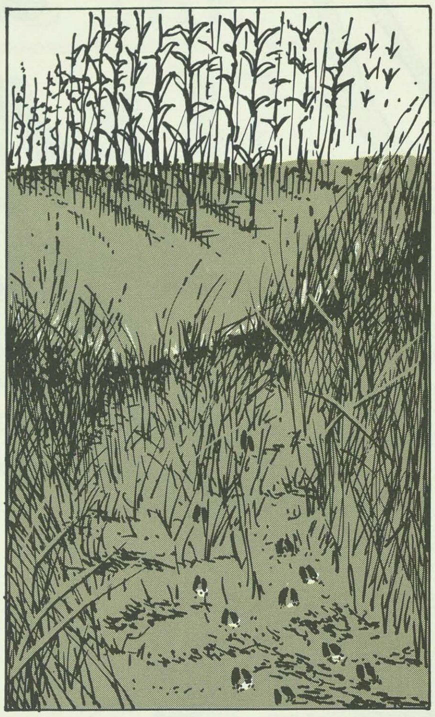
Every deer hunter who's successful on a somewhat continuous basis uses some personal tricks gained from experience—tricks that have worked for him in the past, and often, just a touch of common sense. In turn, a hunter's accomplishments are greatly increased.

Often, a successful deer hunter's field tactics appear to be a casual form of hunting, especially by those who are routinely successful. But, when today's deer hunters are

unintentionally careless with their hunting techniques, they can make routine mistakes. And, we have sometimes inefficient, civilization-dulled senses, alarmingly-shaped body structures and body odors which are easily sensed by deer.

So, we must be cautious hunters and, as much as possible, conform with our game's natural habitat. We can also use liquid masking and/or attracting scents to help hide our human odors and we can study deer habits. ▷

Natural food locations tend to be visited often, with white-tails taking up residence close by.



The elusive white-tail deer's daily habits are sometimes directly influenced by human activities. We can, for example, manipulate the white-tail into feeding in given areas, traveling certain paths and bedding down in locations that might not have been acceptable to them before. Although we can never have total control over all their actions, we can use some natural, enticing controls to our advantage.

There are several factors that influence white-tail habits, but a main factor is food sources. Natural food locations tend to be visited often; but more to your hunting advantage, wherever man plants his food crops, the white-tail often takes up residence close by—sometimes right among the crops. Whether man plants the food source or nature creates the nourishing mast and other vegetation, the white-tail will be close by.

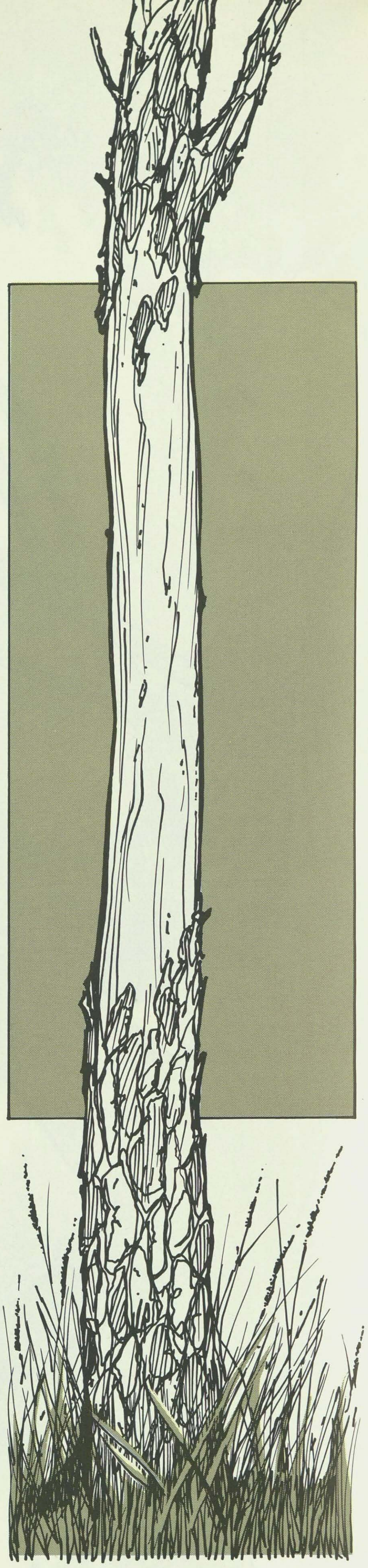
Don't make the mistake of staying at your favorite hunting spot if food sources in that area change. Move with the deer and adjust your stand locations to the deer's habits. This tactic can be useful when you are hunting close to any type of food source, especially human food crops. Where and when these crops are planted often influences where deer travel and hang out.

For example, a local farmer gives you permission to hunt his 200 acres of land, and within the boundaries of these acres he annually plants 80 acres of corn. Usually, when grain crops are moved to a different location each year, deer will adjust to the change and move with the food supply.

In one of the areas I frequently hunt, corn has previously been planted in multiple areas scattered within the farm boundaries during prior years. But last year, only one field of corn was planted. The deer concentrated on this one crop field, making them much easier to locate.

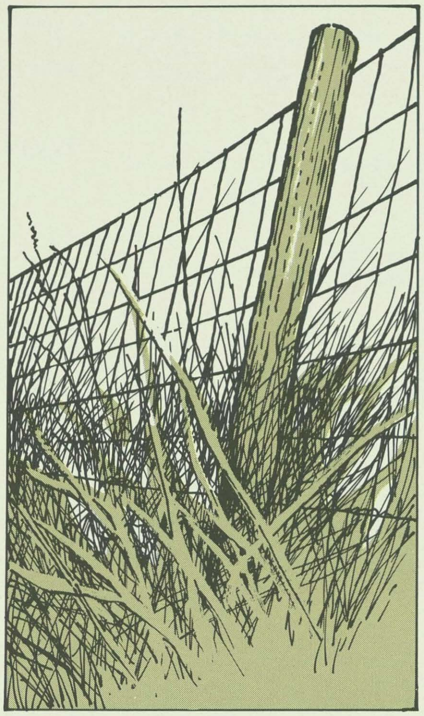
In natural food locations, white-tails are influenced by nature. Locating productive stands of nut trees and browse areas can be in your favor. By careful study and consideration of where and when deer visit these areas, hunters can increase their odds.

Deer are also susceptible to traveling paths of least resistance. They prefer to avoid fallen logs,



By creating or activating existing natural scrapes, you can sometimes manipulate bucks into visiting the spot.

Clean fencerows left to grow up in weeds are excellent bedding spots.



tight-knit briar patches and thick masses of brush and undergrowth—except when they're bedding or hiding. Most often they'll travel the path of least resistance, and alert hunters can sometimes use this habit to their advantage.

Last season, a hunting partner of mine showed me how deer can be induced to change their travel patterns, especially when a better path is introduced to them. He had found what he believed to be a perfect tree stand site—at the base of a timbered hillside close to a large crop field. But because of the hillside's location and structural shape, there was only one tree that was safe to climb and favorable enough for an elevated shot with his bow.

This was fine, but the weeds, swampy potholes and underbrush of those woods were so unfavorable to the deer that they did not travel near the "perfect site" when they approached the crop field. They chose a longer, more open route, which made it difficult for a bow hunter to hunt that area from a tree.

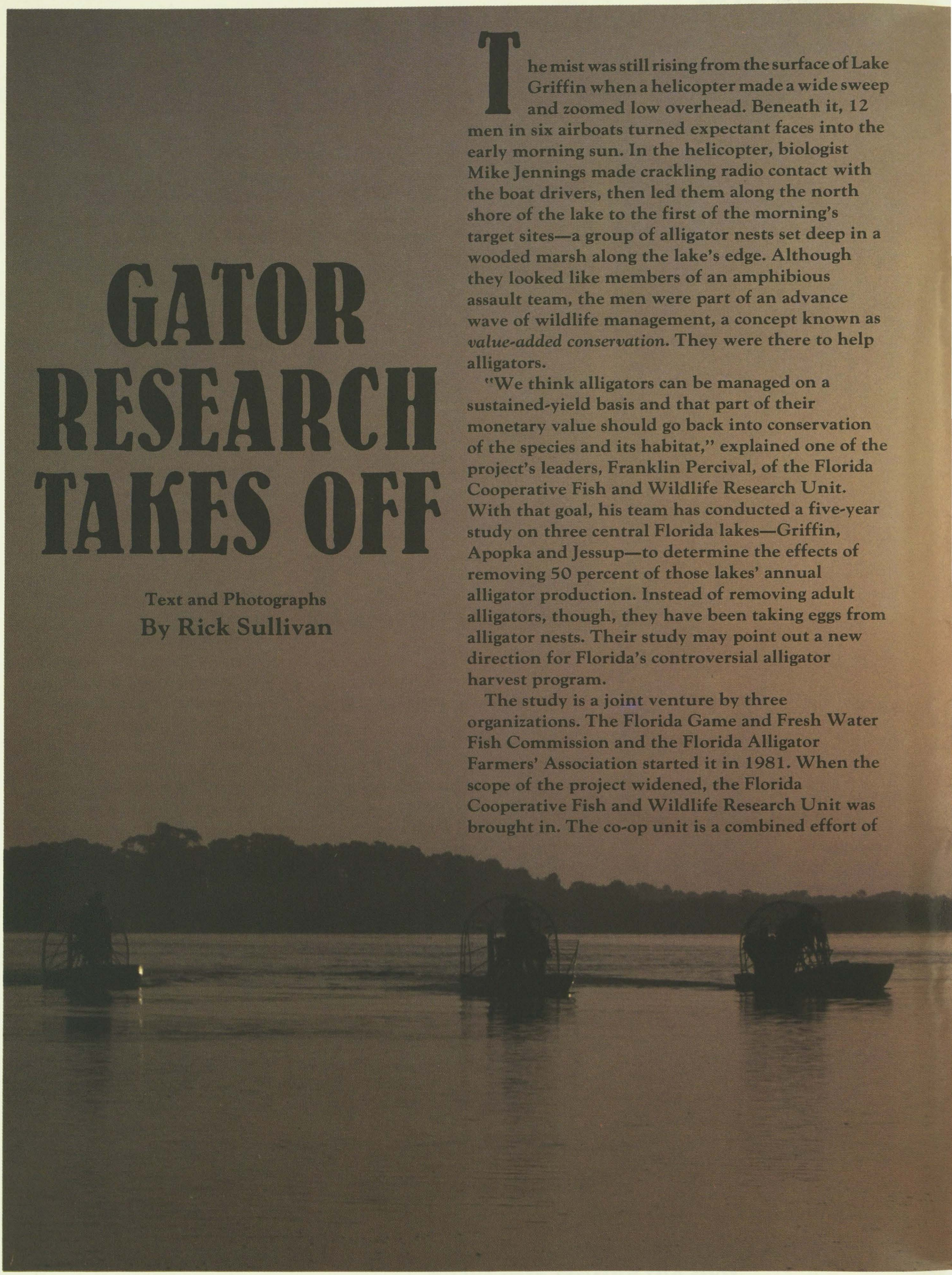
His first solution was to hunt at ground level instead, but that wasn't likely to be successful with the dense ground-level foliage and soggy footing. So, he slipped into the area during the earlier part of pre-season and trimmed up the foliage. He carefully cut a usable path through the natural barrier so that any deer traveling through the area could easily reach the crop field by crossing the hillside—right past his chosen tree stand site.

Two weeks later, the deer began using the pathway. He had induced the white-tails to travel his chosen path, in turn, manipulating them into a position which afforded him a better chance of scoring with an arrow.

Mock scraping techniques can be used to take advantage of a buck's instincts. By creating a new "ground scrape" or stirring up and activating a newly-initiated natural scrape, you can sometimes manipulate bucks into visiting a given spot. This technique can also be used to attract them to a different position relative to your stand, giving you a better view of them.

Bedding areas can change depending upon a deer's desires, the severity or mildness of the weather and pressures of human population. Normally, for example, clean fencerows left to grow up in weeds are excellent bedding spots. Crop fields that are not planted but instead are turned over to nature and taken over by weeds and other natural vegetation become a new source of cover and bedding. We can induce deer to bed in given areas by changing the physical conditions of the ground habitat. When an ideal bedding area is plowed under, destroyed by fire or stripped for human use, deer move out.

Keeping these points in mind, and learning all you can about the habits of the white-tails in your preferred hunting area, can help you be more successful as a hunter.



GATOR RESEARCH TAKES OFF

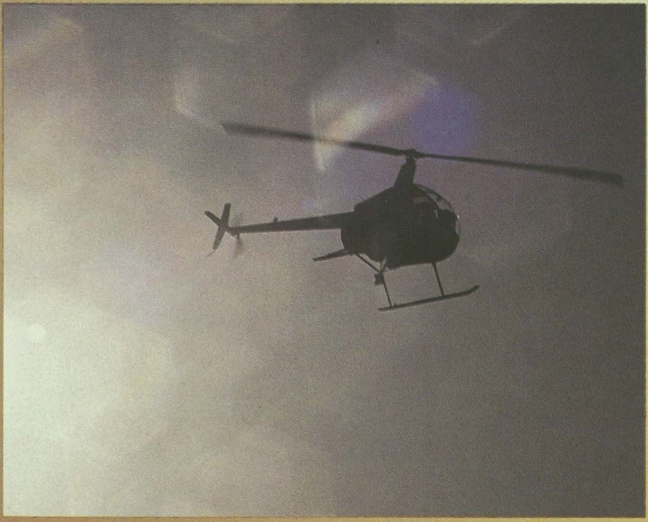
Text and Photographs
By Rick Sullivan

The mist was still rising from the surface of Lake Griffin when a helicopter made a wide sweep and zoomed low overhead. Beneath it, 12 men in six airboats turned expectant faces into the early morning sun. In the helicopter, biologist Mike Jennings made crackling radio contact with the boat drivers, then led them along the north shore of the lake to the first of the morning's target sites—a group of alligator nests set deep in a wooded marsh along the lake's edge. Although they looked like members of an amphibious assault team, the men were part of an advance wave of wildlife management, a concept known as *value-added conservation*. They were there to help alligators.

"We think alligators can be managed on a sustained-yield basis and that part of their monetary value should go back into conservation of the species and its habitat," explained one of the project's leaders, Franklin Percival, of the Florida Cooperative Fish and Wildlife Research Unit. With that goal, his team has conducted a five-year study on three central Florida lakes—Griffin, Apopka and Jessup—to determine the effects of removing 50 percent of those lakes' annual alligator production. Instead of removing adult alligators, though, they have been taking eggs from alligator nests. Their study may point out a new direction for Florida's controversial alligator harvest program.

The study is a joint venture by three organizations. The Florida Game and Fresh Water Fish Commission and the Florida Alligator Farmers' Association started it in 1981. When the scope of the project widened, the Florida Cooperative Fish and Wildlife Research Unit was brought in. The co-op unit is a combined effort of the Commission, the U.S. Fish and Wildlife Service and the University of Florida.

The Alligator Farmers' Association provides research money and volunteers for egg collection, and in return receives eggs. Individual ranchers then incubate the eggs and provide access to the alligators for research purposes—until they are four to five feet long, at which stage, they will be slaughtered. The meat will be sold to restaurants and the hides will be sold at a state-controlled auction. The Commission and the co-op unit provide personnel, equipment and facilities for the research. In return, they receive vital data about alligator reproduction and population dynamics.



A new research program aims to evaluate the taking of alligator eggs from nests for raising in confinement. This method provides a way for conservation of alligators to be financed in part from controlled harvest of the species.

The study arose out of the Commission's interest in developing a management program for the harvest of immature alligators—in effect, a ranching program. "Ranching" differs from "farming" of alligators in its dependence on natural habitat, says Percival. "*Farming* is an enclosed system where the young are produced on the farm and raised to harvest or reproductive age," he explained. "In *ranching*, you're dependent on natural habitats for at least part of the life cycle of the animal. In the case of alligator ranching, that part of the life cycle is the early-age classes because that's where the farming *bottleneck* is."

The bottleneck for alligator farmers has resulted from alligators failing to produce lots of eggs in captivity. Wild alligators, on the other hand, are highly productive, but much of their productivity is wasted. Large numbers of eggs and hatchlings are lost to floods or predators. It was inevitable, perhaps, that the Commission and the Alligator Farmers' Association would try to come up with a way to use that wasted productivity by removing eggs before they are lost. The current project is the first attempt to evaluate the effects of egg removal on alligator populations.

In theory it should be possible, by harvesting eggs, to extract a large return from wild alligators without harming the overall populations. But theories have to be tested, and that is why Jennings was hovering 20 feet above the treetops in a helicopter, directing airboat driver Lindsey Hord to an alligator nest situated 100 yards back in the vegetation. ▷

Airboats are used to get as close as possible to alligator nests that have been spotted from the air; however, biologists still sometimes have to wade through water and thick vegetation to gather the eggs. Gathered eggs are carefully packed to keep them oriented "right side up" so that the embryos will stay alive.

With the big airboat engine at idle, Hord lined up with the helicopter and then cut loose. The blast from the airboat's propeller threw spray 50 feet behind the boat and the exhaust noise was deafening. At close to full acceleration, he hurled the boat at a line of willows, trying to drive it through them and into the more open marsh beyond. It was not a job for amateurs. Once through the willows, the airboat skimmed over the sawgrass and maidencane until it stopped at another line of willows. From there, Hord and passenger G.O. Parrot went on foot.

Meanwhile, Jennings had darted off to lead the next boat to another nest. Throughout the morning he directed five of the boats continuously, and the efficiency of the whole operation depended on his skill and experience.

"It's like leapfrog," said Jennings. "You send someone into a nest while there's someone else coming behind him for the next nest. You just have to keep track of where you are in that leapfrog cycle. Once you've put everybody on a nest, you go back to the first guy and bring him up to the front."

Of course, down on the ground, they didn't see it quite that way. The men in each boat were convinced, to hear them tell it, that Jennings had singled them out for the worst nests—the ones hidden deep in the toughest "Rambo willows," the ones with the "mad dog bumblebees" or fire ant nests on them, the ones where they had to walk the last two hundred yards up to their armpits in mud and water, or the ones with a mean mama gator ready to take on all comers. Jennings insisted that he just took them in order...for the most part, but he did admit that there was a certain gratification at being able to pick the nest he put his boss, Percival, onto.

The last boat was driven by John White, of the Commission. Because he was one of the most experienced drivers, he had the least experienced assistant with him. The first nest they were directed to was in the middle of a large, floating island of vegetation. Narrow, watery trails called "runs" led into the nest, but no one had walked in them since the day a researcher stepped on a large alligator resting at the bottom of a small run.

It took some serious slogging to reach the nest. The heat and humidity were constant problems and all workers were encouraged to keep up their fluid intake. At the nest, the real work began. An alligator nest is a mound of vegetation, perhaps a meter high and two meters across. It is often surrounded by small "nursery pools" that may hide a protective female gator, so when ▷

PANTHER
PANTHER

the harvesting is done, one person stands guard with a stick or an oar while the other digs up the nest. Careful notes are made of details like surrounding vegetation, size and composition of the nest, percent of shade on the nest site, moisture and a dozen other facts.

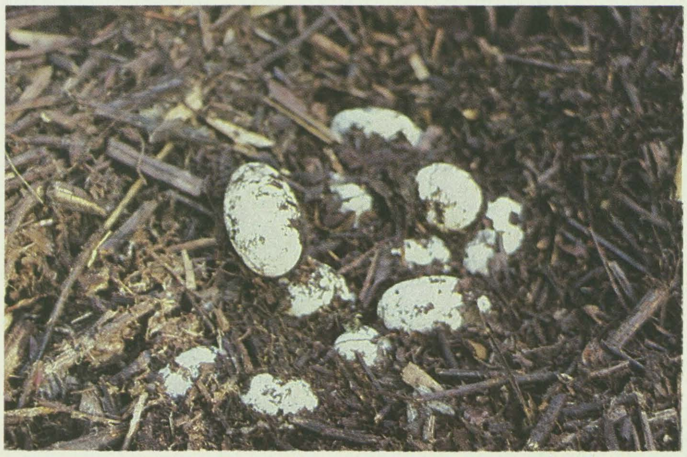
White carefully dug into the mound until he could see the first eggs of the clutch. False nests, perhaps constructed to confuse predators, are not uncommon, so it was a relief to see that one was genuine. The eggs were about four inches long, more cylindrical than chicken eggs, and were marked at each end with a slightly darker banding, which indicates a healthy embryo. Once exposed, the entire clutch—almost 50 eggs—was transferred with extreme care to a straw-filled plastic pan. Each egg was marked to indicate which side went up.

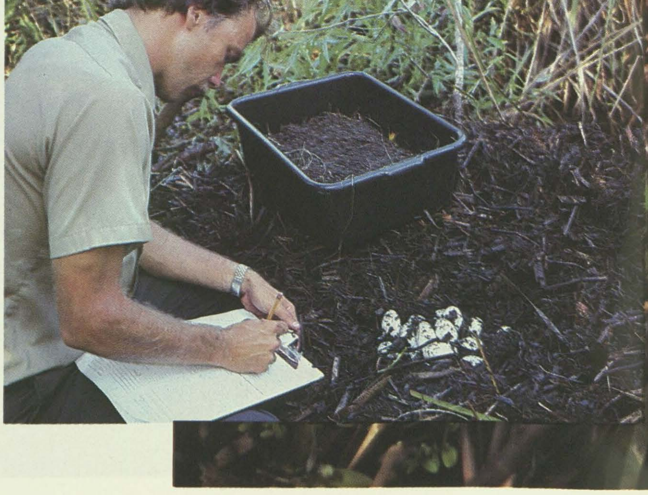
Then came the hard part—getting back out while carrying a large pan loaded with four dozen alligator eggs. The danger was not so much that the eggs might break (they are less brittle than bird eggs) but that jarring an egg might break the embryo's attachment to the shell. If that happens, the embryo dies. John White knows his stuff; he didn't rattle an egg the entire day.

While his assistant held the egg pan, White maneuvered the boat back to open water and looked for the bright yellow airboat where Don Ashley was waiting. After collecting eggs at each nest, the drivers returned to Ashley with their egg pans held gingerly by their passengers to prevent any shocks. Ashley carefully stowed each pan, padding them with foam rubber and inner tubes.

By mid-morning the yellow boat was filling up, everyone was exhausted and the helicopter was running low on fuel. So while Jennings and the pilot returned for

When alligator eggs are collected, careful notes are made to record such details as the size and composition of the nest, surrounding vegetation, moisture and amount of sunlight and shade on the nest. The eggs are about four inches long, and more cylindrical than chicken eggs. One nest held almost 50 eggs.





refueling, everyone gathered around Ashley's boat, guzzled Gatorade and talked about tough nests and airboat problems. When the helicopter returned, the work started again.

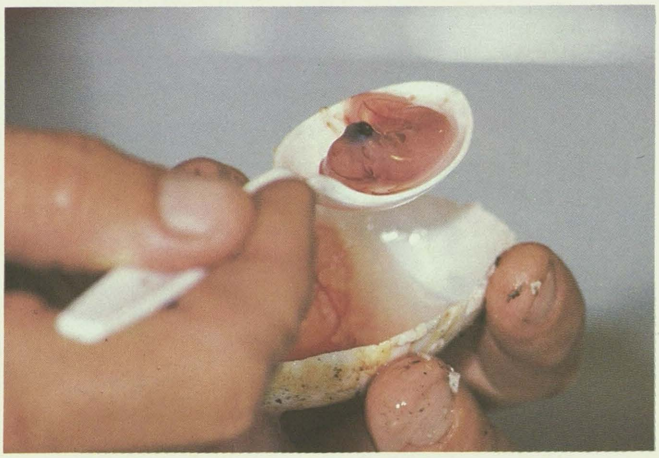
By early afternoon, the yellow boat was heavily loaded, and it was time to return to Pine Island Fish Camp for the second stage of the work. While others sorted equipment, cleaned out boats, made repairs and prepared for another effort the next day, Percival and Jay Clugston sorted and weighed the pans of eggs. They checked the data sheets and passed the eggs into a small trailer equipped as a laboratory.

Inside, Jennings and Martin Sanders examined the eggs and recorded more data—how many of the eggs were viable, how many were infertile, how old the embryos were, how healthy they were and more. They examined as many as 3,000 eggs, some of which were rotten. They did not finish until well after 6 p.m., but they counted it as time well spent—the data were what it was all about.

Long-term monitoring of the alligator populations on these three lakes will enable biologists to evaluate the effects of egg removal. If the results seem favorable, alligator management in Florida may enter a new phase, in which harvesting will be done before the animals are even hatched, and impacts on adult populations will be minimal. If that happens, the idea of value-added conservation may take on new substance.

Says Percival, "We don't say this is a panacea for all wildlife conservation; we see it as one option for the conservation of crocodilians. Worldwide, crocodilians are being exploited, and if they're going to be exploited, they might as well be exploited in such a manner that they will help pay for their own conservation."

After collection, eggs are transported to a small laboratory where they are weighed, sorted and checked for viability. As many as 3,000 eggs were examined from one day's collection. The data gathered from this egg removal experiment will be used to evaluate a concept of "value-added conservation" for alligators.



SEEK THE HEAT

Text and Photograph
By Larry Larsen

The lily pad bed in front of the boat was faintly illuminated by the gray light of predawn. Winds of 30 mph quickly pushed us toward our chosen fishing spot. Breaking waves repeatedly splashed at us as my partner and I dropped anchors to slow our progress.

We first worked the outside edge of a lily pad expanse thoroughly before we lifted our anchors and let the wind carry us another 10 feet closer in. That made the difference.

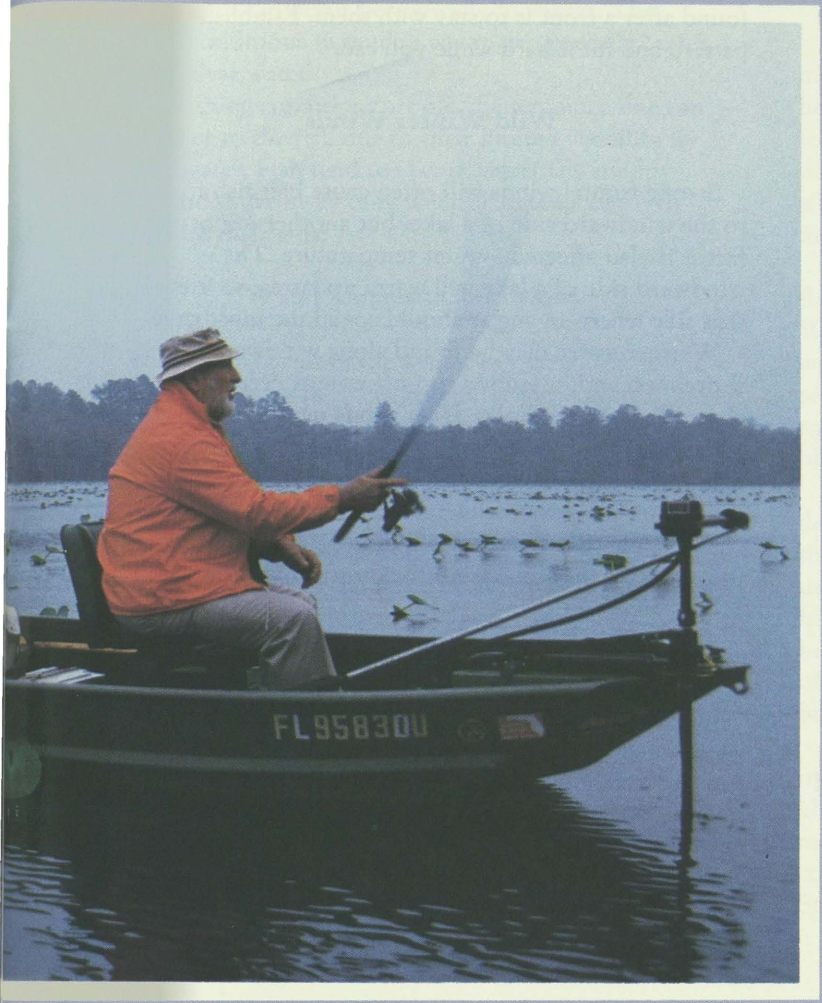
I was retrieving a large, 11-inch plastic worm from deep back in the bed of bonnets when the worm's motion ceased. Although thickly bundled up for cold weather, I managed to set the hook into a nice 5½ pound largemouth.

Luckily, I worked it through both the lily pad entanglements and the "surf" to the landing net without much difficulty. Pulling through, over and around lily pads can loosen a hook's grasp on a bass, so my partner had a net ready for landing the bass at boatside.

On that trip, anchors were essential because of the strong winds that had developed just prior to the trip. The trolling motor could not have held the boat in a proper casting position to allow us to effectively fish the first bass nor the following two we soon landed.

After a cold weather front moves through, winds can be high and anchors used in conjunction with special techniques may be required for successful bass fishing. Wind and cold temperatures can wreck havoc with a winter bass fishing excursion. Bass are very sensitive to the effects of cold fronts, as are the fishermen who chase them.

As the water temperature drops, bass and other fish move into the warmest water available to them. Thus,



FOR WINTER BASS

the key to wintertime and cold front angling is to find structure in the warmest water.

Since their food is digested quicker in warm waters, bass get hungry sooner. This makes the angler's job easier. It is much easier for the successful cold weather fisherman to catch an actively feeding fish than a fish which is not feeding, or is essentially dormant. Bass movement is dependent on water temperature, light and wind. The shallower the lake, the quicker the water warms up. Also, the more a wind blows, the more diffused the light will be, because as the water surface is whipped by strong gales, the penetration of the sun's rays is diminished.

Since the morning air temperatures are generally cooler on most days, the lake temperature often varies a couple of degrees from morning to evening. For example, in a three-day warm snap, the water temperature in a small lake may be 58 degrees the first morning, 60 that afternoon, 59 the second morning and 62 in the afternoon, 61 the third morning and 64 the third afternoon.

In these circumstances, the fishing should pick up each day, with a height of activity on the third afternoon. Generally on a one-day warm-up, afternoon fishing will prove to be most productive. The conditional factors of light and water temperature are better at this time than earlier in the day. Nearly the same amount of sunlight is reflected by the surface at 9 a.m. as at 3 p.m., but the afternoon water temperature tends to warm some.

After a second warm day, morning fishing can be as good as the afternoon's, and if the weather continues to warm, it will probably get progressively better. ▷

During the winter, cold fronts frequently bombard the South, driving bass deep and putting them in a sulky mood. These fronts will usually upset all fishing, but action is generally good just before the front arrives and improves about three days after it passes. Depending on the severity of a front, some bass can be located during the cold front by searching waters that are deeper than one might usually fish.

Often, bass will feed aggressively prior to the passage of a weather system. But the effects of a cold front generally require you to alter your techniques if you want to catch them. Successful anglers will turn on their depth finders and search out deeper drop-offs, submerged islands and underwater ridges. They will look for depth drops having some kind of cover, such as brush or stumps. They'll realize that cold fronts generally have a tremendous effect on bass feeding in most shallow lakes.

Winter water temperatures may vary by 15 degrees and, in small water bodies, they can fluctuate that much in just four or five days. A small drop in water temperature can cause bass to move out of shallow water to deeper haunts.

Cold winter weather is the time to adapt to the conditions and fish deeper. For example, if you have located fish 12 feet deep on a typical Southern lake, and caught fish all week in 60-degree weather, then a front (35 degrees and blowing) moves in, you'll probably have to find some holding structure in 16 or 18 feet to continue catching them.

The important thing to remember when bass are found after a front is to stay with them. Establish a pattern and hit it hard while you can.

Wild Winter Winds

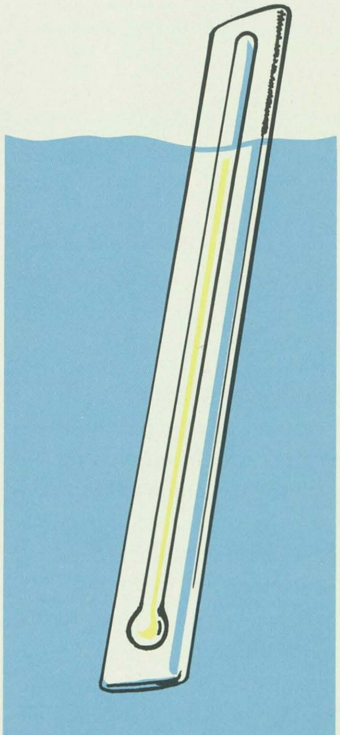
Strong frontal winds will often cause bait fish to move to the windward side of a lake, but another important factor is also affected—water temperature. The windward side of a lake will warm up faster, so it is on that side where an angler should spend the most time.

Warmer water may be found along windward shorelines, and in muddy run-off waters, creek or river channels and deep holes. High winds tend to warm the water and sometimes discolor it, and they can push bait fish in close to the windy side of a point. High winds can stir up plankton, which in turn may start a feeding chain. A continuous wind will muddy shallow waters on the opposite shoreline from the direction it blows.

Contrasting Clarity

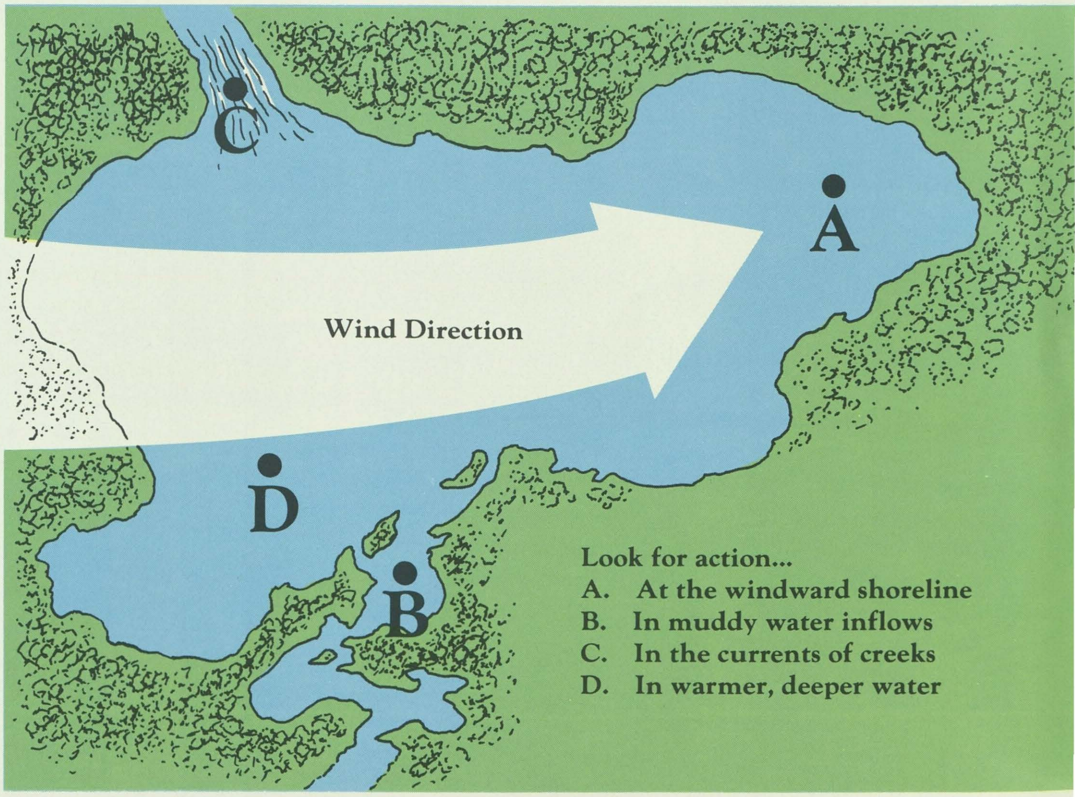
In winter, most waters are clearing. Summer's murky water can then be almost crystal clear in some lakes and this winter clear water tends to be cooler than muddy water. For this reason, muddy water usually holds more fish.

Many reservoir fishermen head for the muddy tributaries as soon as their hull hits the water. Anglers



Water temperature influences where bass hang out.

Where To Look For Winter Bass



Look for action...
A. At the windward shoreline
B. In muddy water inflows
C. In the currents of creeks
D. In warmer, deeper water

often frequent these muddy water areas after heavy rains, which can occur periodically in winter. The feeding conditions in muddy water are generally better than in clear water.

The fishing conditions are also better, since one can fish closer to the fish due to their limited visibility in darker water. Fish tend to stay in extremely muddy water and move away only when sediments begin to collect on their gills.

Water Current Conditions

Water movement in the winter can mean warmth to a fish. Outer bends in rivers generally have a more concentrated current, but tributary mouths often have some current activity as do the creeks themselves. If structure can be located in such areas, it is always a good bet for a few fish.

Sometimes man-made currents, such as those at the opening of gates at a dam or navigation lock, will encourage fish feeding activity. Bass love such an environment.

Another prime current source is tidal flow. The moon's tidal pull causes water to flow in and out of tidal rivers, and areas such as these can be excellent wintertime bonanzas. Largemouth bass can tolerate a certain amount of brackish water, and a mixed catch of freshwater and saltwater fish may result from fishing there. Late winter is my favorite season to fish tidal-influenced waters.

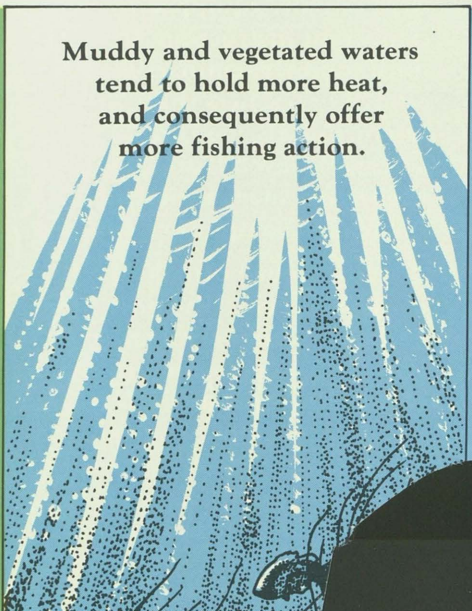
Deep Waters

Most anglers who have fished Florida in the winter months consistently know what a spring-like day—or better yet, two or three consecutive warm days—will do for the stringer. A warm snap in midwinter is just what most fishermen hope for. The high air temperature warms the surface water and shallows, causing bass to move into the shallows to feed.

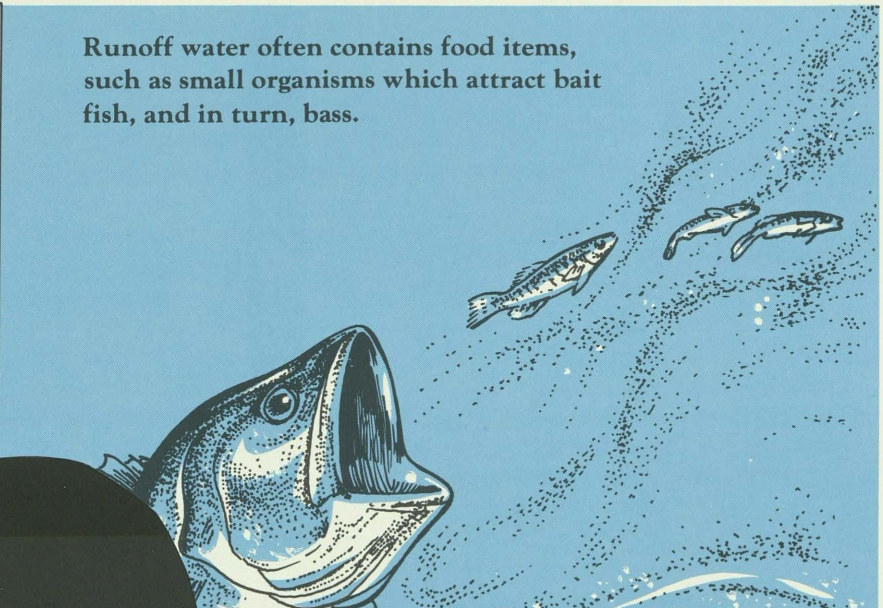
Depths are less prone to winter temperature fluctuations and are the natural home for most fish. Winter is similar to summer in that bass stay in deep water and move to shallow water less often than at other seasons of the year. When shallow water cools off, due to the colder weather, fish tend to move deeper in quest of warmer water.

It is important to remember that when moving to deeper water, you should keep the bait on or very near the bottom. Bass will be holding on structure and usually found on the bottom. Bass, however, can also be found suspended among submerged trees which have been inundated by an impoundment's water, or bass can often be found within other vegetative growth or bonnets.

Knowing what to do about the cold weather is your most important knowledge for wintertime bass fishing. Unless you don't mind putting away your rods for a few months, you'll have to live with the cold, so learn to combat it and enjoy fishing year-round in the Sunshine State.



Muddy and vegetated waters tend to hold more heat, and consequently offer more fishing action.



Runoff water often contains food items, such as small organisms which attract bait fish, and in turn, bass.

Buttons for Bird Conservation

By Phillip M. Pollock

Photographs By John Waters Jr.

At the turn of the century, the Florida peninsula was a rich paradise for sportsmen; however, hunting by a few unethical people was sometimes carried to frightening extremes. Valuable bird plumages, highly desirable in Northern millinery markets, gave a small number of market gunners the necessary incentive to kill certain birds in great numbers. This, combined with excessive "sport" shooting, endangered many bird species, giving private conservationists and government agencies ample motivation to develop protective measures for bird populations.

As a result of these circumstances, a handful of concerned Florida environmentalists gathered at the home of L. F. Dommerick in Maitland, Florida on March 2, 1900. The purpose of the meeting was to form a state affiliate of the National Audubon Society, with members pledging their support in the protection of nearly all of Florida's diverse and abundant bird species. At the close of the meeting, club officers had been chosen and the Florida Audubon Society began to function.

On July 21, 1896, a date seemingly unrelated to this event, the Whitehead and Hoag Company patented a pin-on button design that ultimately helped to promote organizations like Audubon. The celluloid button, primarily used for political campaigns, served as an important visual advertisement at a time when media forms, as we know them today, were virtually nonexistent. Consequently, the colorful and well-designed Audubon buttons greatly accelerated the message America's various Audubon societies hoped to convey.

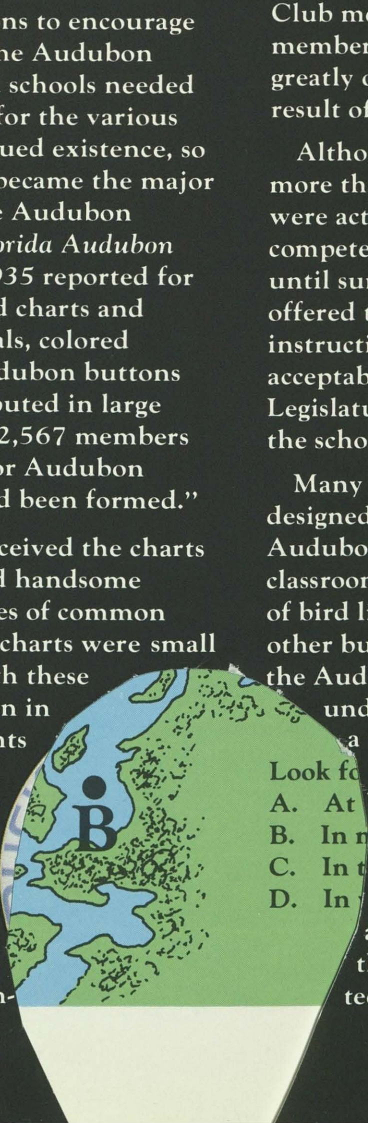
The National Committee of Audubon Societies (so-called by 1901) had garnered the support of 35 states and it utilized the Audubon buttons to encourage membership. The Audubon Society believed schools needed to be nurtured for the various societies' continued existence, so schoolchildren became the major recipients of the Audubon buttons. *The Florida Audubon Society, 1900-1935* reported for 1913 that, "Bird charts and drawing materials, colored crayons and Audubon buttons had been distributed in large amounts to the 2,567 members of the 132 Junior Audubon Clubs which had been formed."

Classrooms received the charts which contained handsome colored likenesses of common birds. With the charts were small white sheets with these same birds drawn in outline. Students used crayons to color in the outlines, with the best artist receiving buttons and other prizes. In one classroom, a high-school student also received a $10 cash prize for an essay about birds, while the second place finisher was awarded a bird book.

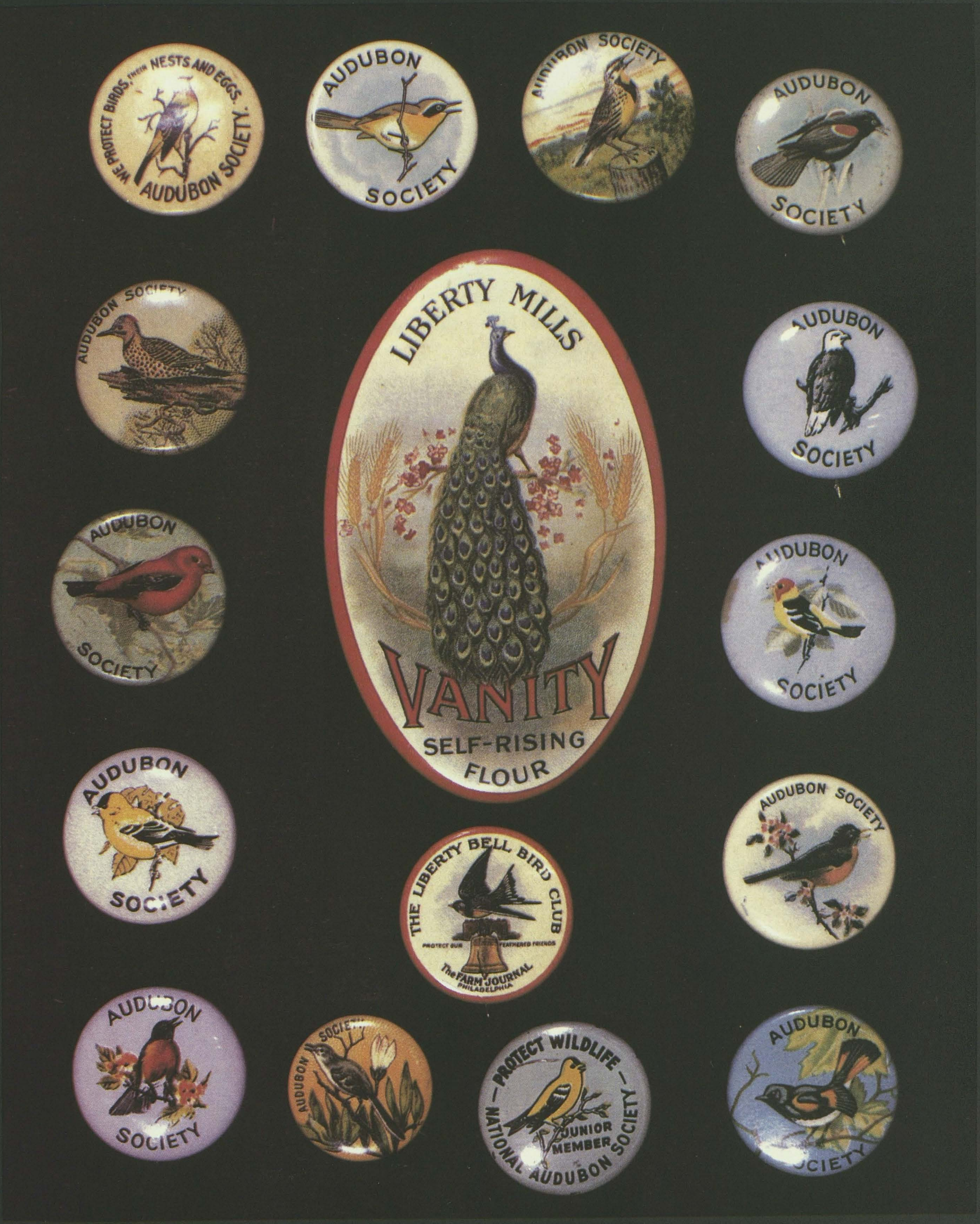
Teaching about birds was popular in Florida schools in 1921 and was highly successful. By 1924, Marjorie Goodhue, a consulting classroom teacher, spent two months in Florida schools, which at that time enrolled 8,000 Junior Audubon Club members. This membership total fluctuated greatly over time, as a direct result of teacher participation.

Although many teachers were more than willing to help, few were actually equipped to give competent instruction. It wasn't until summer seminars were offered to teachers that instruction reached an acceptable level. Later, the Legislature made bird study in the schools compulsory.

Many of the buttons were designed specifically for Junior Audubon Club members in the classroom, as education in the area of bird life expanded. However, other buttons simply promoted the Audubon Society and were undoubtedly aimed toward a nonspecific audience.



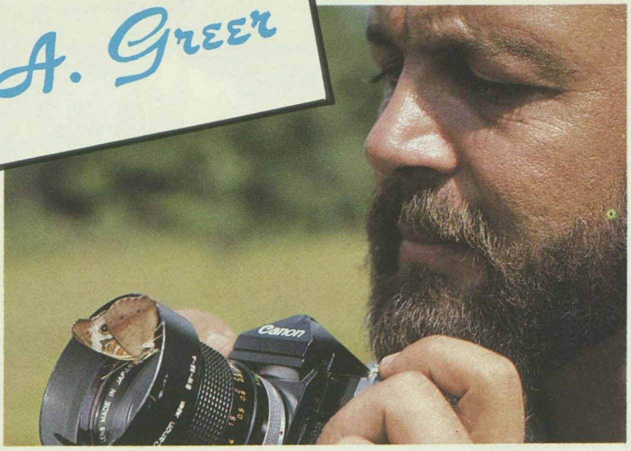
The success of these early buttons was phenomenal. The buttons, often only the size of a half dollar, incorporated superlative artwork. Rich colors were the result of lithographic techniques that were labor-



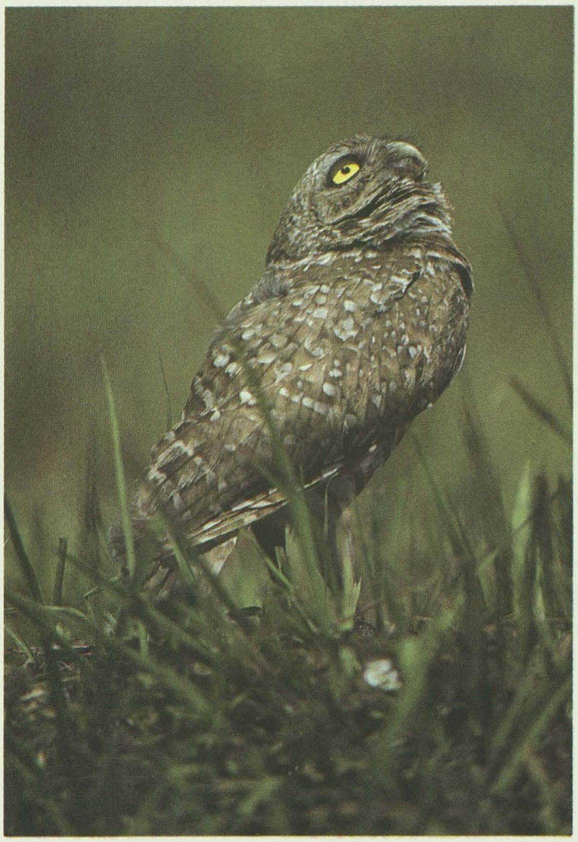
intensive, and as a result, would later be discontinued in lieu of cheaper methods. The National Audubon Society has continued to offer buttons in recent years, but these newer versions lack the quality of the earliest bird buttons.

Interestingly enough, just as older Audubon and other organizations' buttons performed their functions well in years past, so today do they have a function. Now, however, they find their way into collectors' hands, where they are valued for their beauty, design and messages—often dated, but linked to our past.

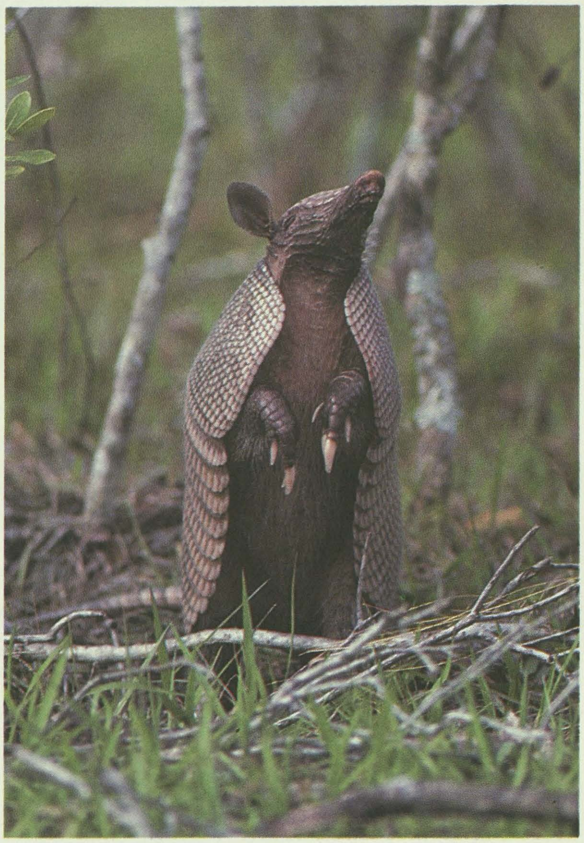
William A. Greer



"There's a certain amount of magic to photography that I'm still intrigued by. You can know how to build a camera and the mechanics and chemistry involved, but there's still some magic," says William A. "Bill" Greer.



Burrowing Owl



Armadillo

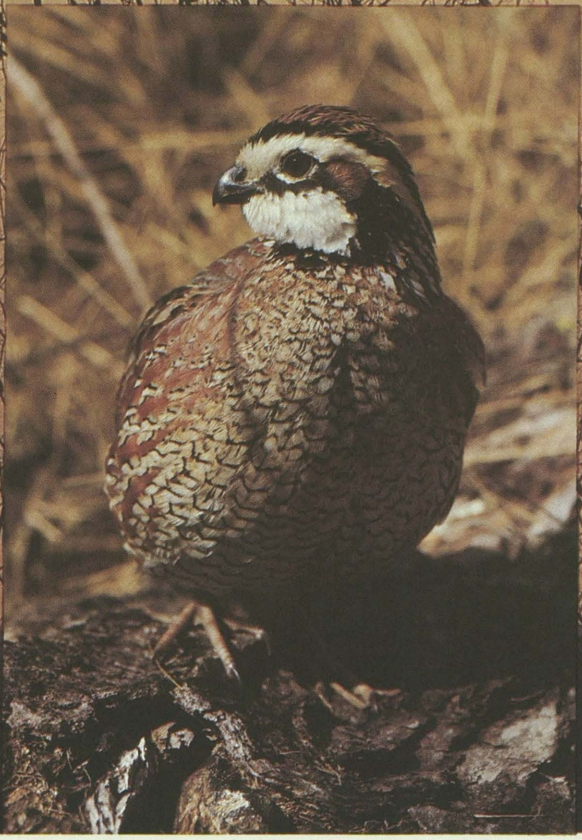
Perhaps it's this attitude, combined with a lot of hard work, that makes Greer, the Commission's audio-visual media director, such an outstanding wildlife photographer.

Originally from Port Tampa, "a little fishing village no longer in existence," Greer grew up as a "military brat," traveling all over the world and spending several childhood years in Europe. His interest in anything outdoors has been with him as long as he can remember.

"One of the first things I did, no matter where I was living, was to find out where the nearest body of water was, he says." Today, Greer still finds himself drawn to water every chance he gets to do a little fishing.

Greer began his college career at Florida State

Pied-billed Grebe and Great White Heron



Bobwhite Quail

University as a painter, but did his graduate work in graphics, print-making and photography.

"Photography is more immediate than painting in the sense that you take an image and right away you pretty much know whether you've got something or not. But that's not to say it doesn't have its limitations like any other art form," he says. "In some respects it's much more restrictive, but it suits me better than working with paints."

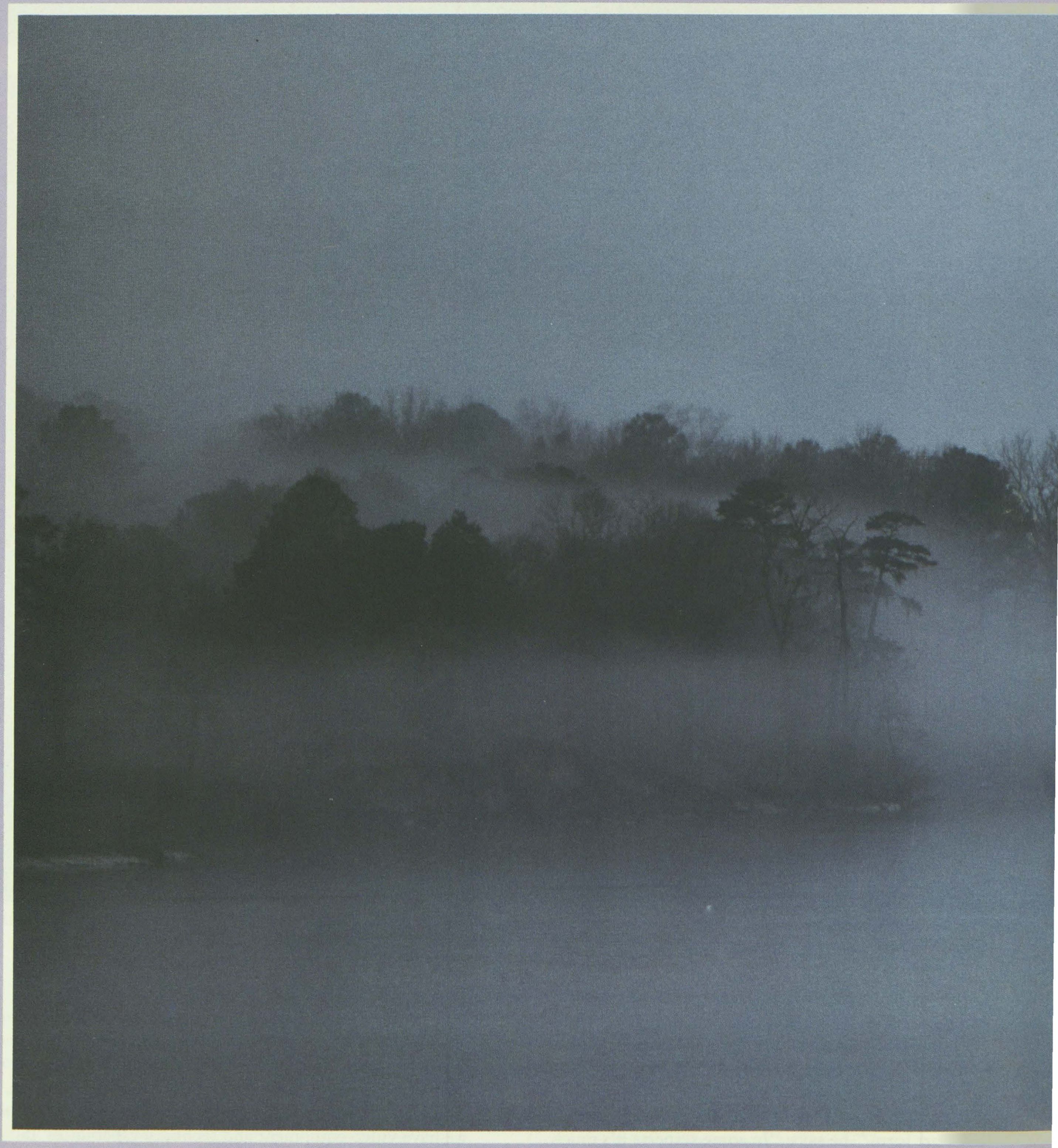
Greer joined the Commission's staff in 1970 as an information specialist in the Information-Education Division. "Things here have come a long way since then, he says." We didn't have much to work with then, but today we have video equipment and technical capabilities ▷

we'd only imagined then."

Greer's talents as a photographer are matched by his skills with a video camera. His recent video recordings and photographs of an injured Florida panther attracted widespread media attention to the Commission's Florida panther recovery program and several of his television public service announcements have won national awards.

Many wildlife photographers will tell you there's as much luck as skill involved in getting the perfect shot. However, Greer feels more emphasis should be placed on being prepared.

"I don't believe in luck—but you make your own luck if it exists. You should take advantage of a situation and control as many of the variables as you can, then be there when 'luck' happens. Being able to recognize a situation in which 'luck' happens, and being prepared for it, is *skill.*"



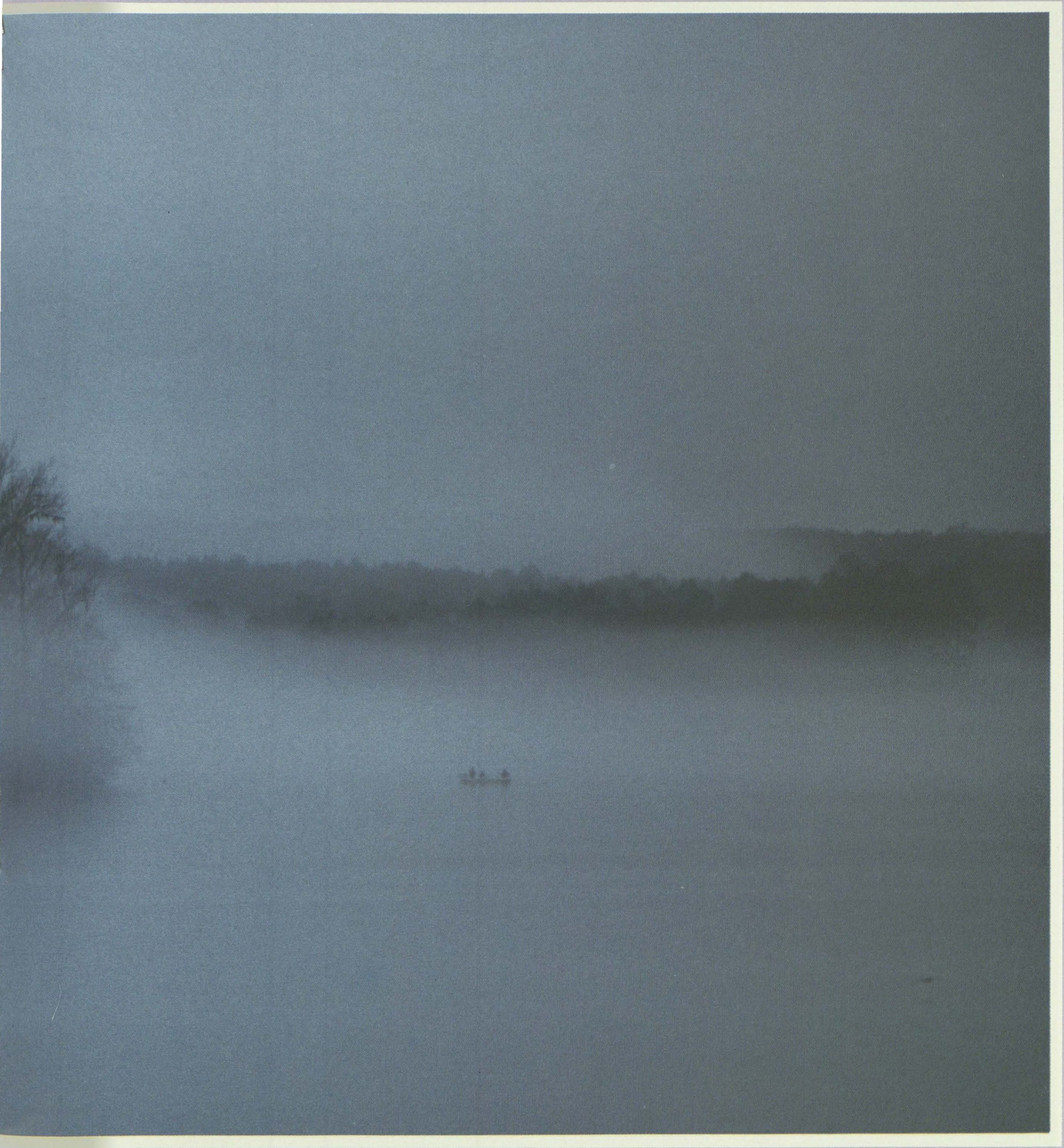
Asked what tips he has for aspiring wildlife photographers, Greer notes that it helps to have a "feel" for the animal you're photographing.

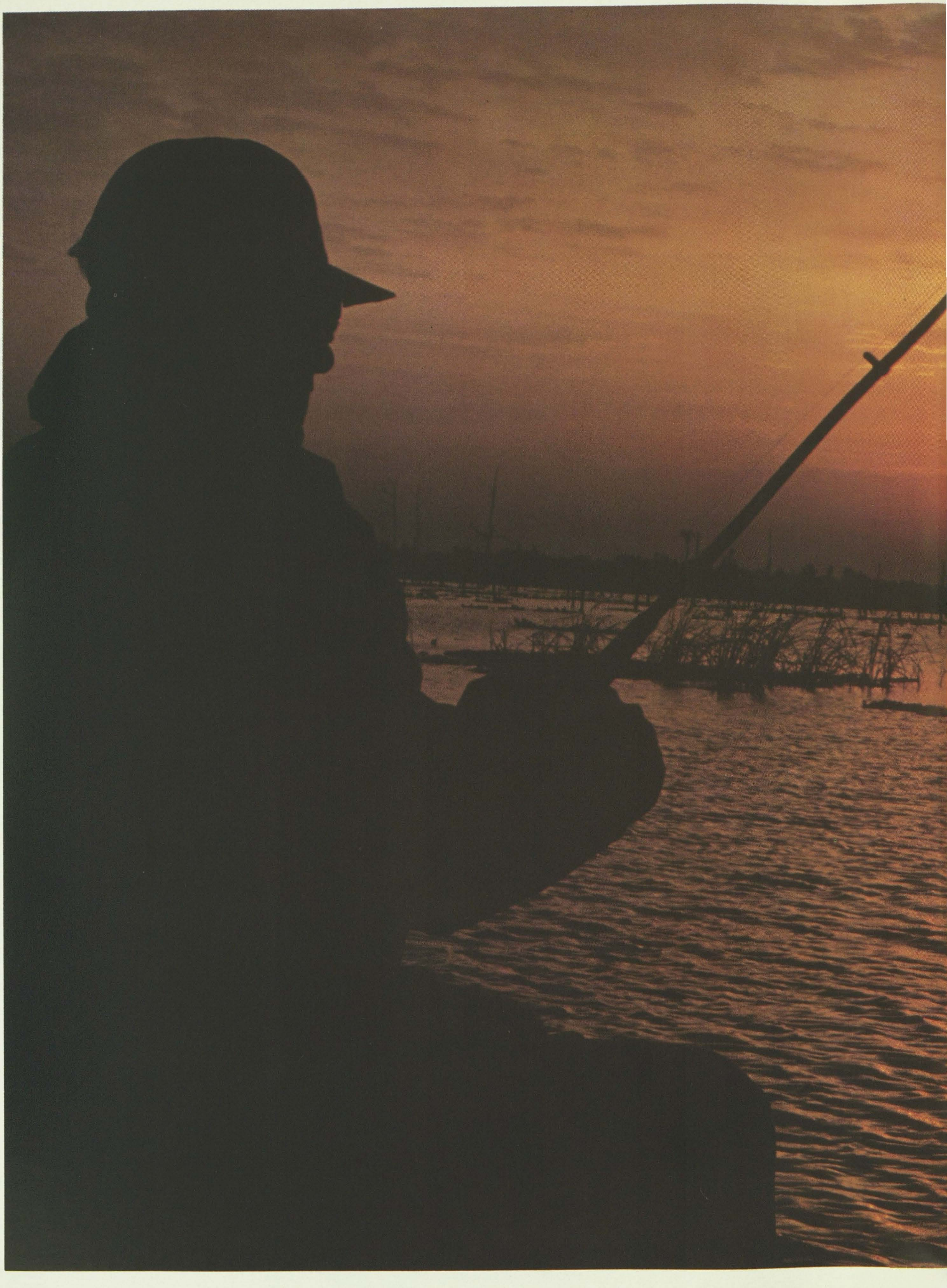
"Knowing what kinds of behavior to expect from your subject can be a big help and you certainly don't have to be a biologist to obtain that knowledge. Just observing a species can often tip you off to its characteristic behaviors."

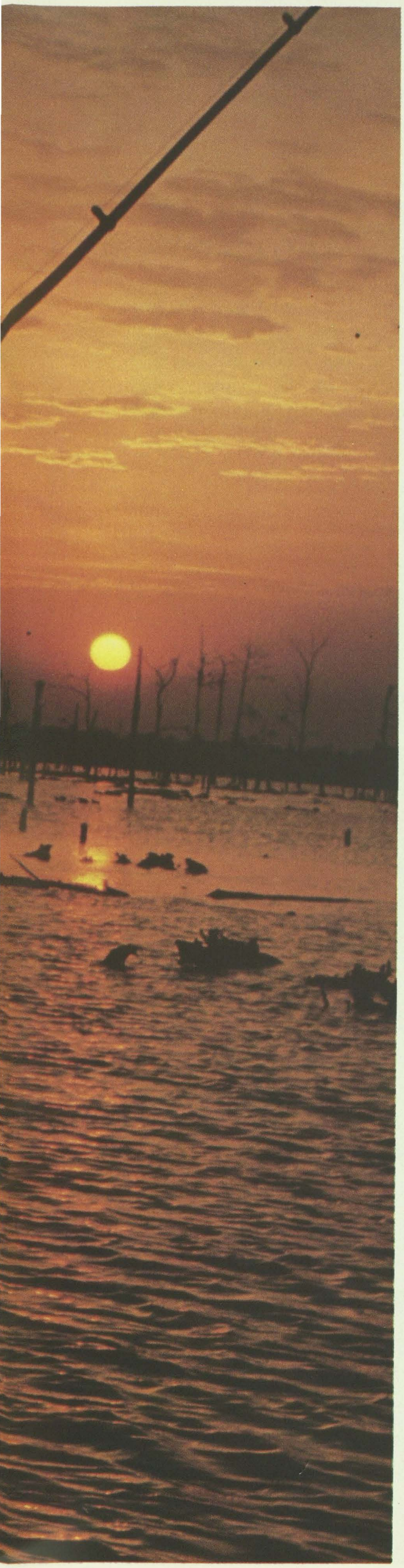
Greer also stresses the importance of perseverance. "Like anything else, you have to really work at photography. Don't count on luck, narrow the variables and be persistent."

It's evident that persistence has paid off for Greer. His work allows us to glimpse the magic of Florida's wildlife and the beauty of nature captured through the magic of photography.

— *Paige Moody*







Lake Seminole

WINTER WINDFALL FOR LARGEMOUTHS

Winter is a transition time on Lake Seminole, but no matter what the weather, bass will be on the prowl.

Text and Photographs
By Bob McNally

Let's face it. Bass fishing in cold weather is no fun—unless, of course, you're catching fish. At least when largemouths are being boated, you can sometimes stand the "minor" discomforts of howling North winds, low temperatures and scudding, putty-gray clouds.

In all of north Florida, there is no better lake for winter bass action than Lake Seminole (Jim Woodruff Reservoir), located just northwest of Tallahassee and straddling the Florida-Georgia state line. With the right weather conditions, winter fishing on Seminole can be fabulous. Most largemouths caught weigh two to four pounds, but plenty of six- to eight-pound fish are landed, too. Moreover, every year at this time, a few largemouths in the 10-pound class are taken, and occasionally an 11- or 12-pound fish is boated. The lake's record bigmouth of 16 pounds, four ounces was caught on a bright, sunny day in late winter.

Like most lakes, winter Seminole largemouth action depends on the weather. Warm, bright skies with no wind for a couple weeks will result in great shallow-water bassing. But if winter's icy grip still clutches the Seminole area during February, largemouths will be deep. Obviously, successful anglers on Seminole are weather watchers. They modify their fishing tactics according to the whims of the seasons. During cold weather, vertical jigging along abrupt drop-offs is very productive. Many anglers employ "Little Georges," small bucktail jigs, jig-and-eel combinations, "Slab Spoons," and "Hopkins Spoons." ▷

Top areas for vertical jigging during cold weather on Seminole are the Spring Creek and Fish Pond Drain arms on the lake's north side. The standard jigging technique is to slowly work along the edges of creek channels. Lures are lowered to the bottom and a gentle up-and-down or "pumping" motion is imparted to them. The channels are somewhat defined by flooded trees that border the drop-offs. However, jigging for cold-water bass is very precise fishing. A big school of 50 or more bass can be bunched in an area no larger than a walk-in closet.

The "inside turns" or sharp drop-off areas of flooded creeks usually are best for jigging in cold weather. In addition, the Spring Creek arm has quite a few productive sandbars, ridges and submerged moss beds in the middle of the creek, well out from the tree lines. Slight depressions, "breaks" and "holes" near such areas occasionally hold good schools of cold-water largemouths. It's important to remember that deep-water Seminole bass, especially in cold weather, are somewhat lethargic. So anglers should jig lures very slowly, rarely "hopping" an artificial more than a foot or so off the bottom.

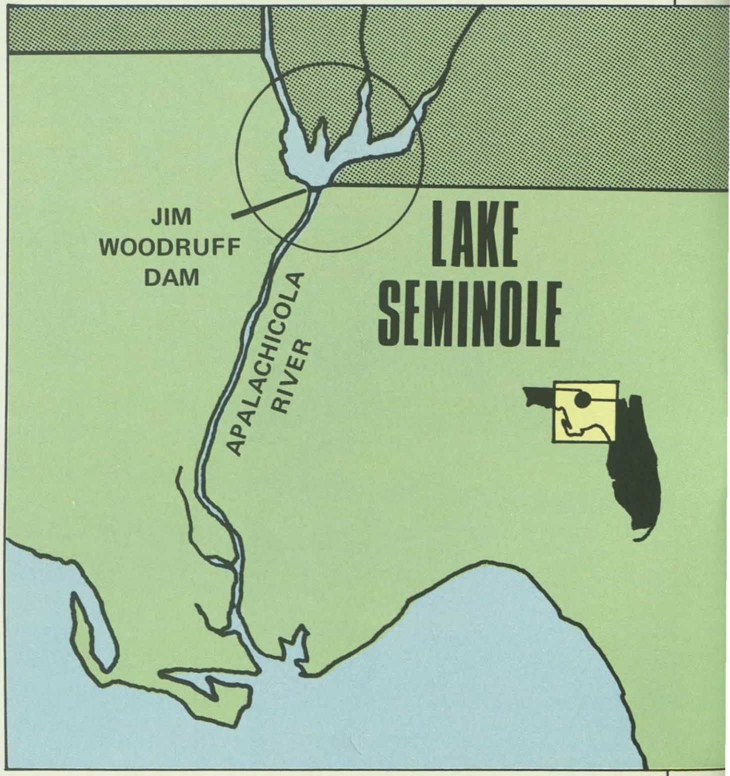
A few days of warm, calm, stable winter weather, with midday temperatures in the 50s or 60s can really "turn on" Seminole's bigmouths. The fish move into the shallow, stump-studded waters bordering deep water. The shallow flats along the Spring Creek arm and near Fish Pond Drain usually provide the top bass action. The area just west of Fish Pond Drain can be especially good. Bigmouths at such times are in a prespawn condition and are very active and aggressive. In fact, this probably is the best time of year for catching large numbers of better-than-average-size mossbacks.

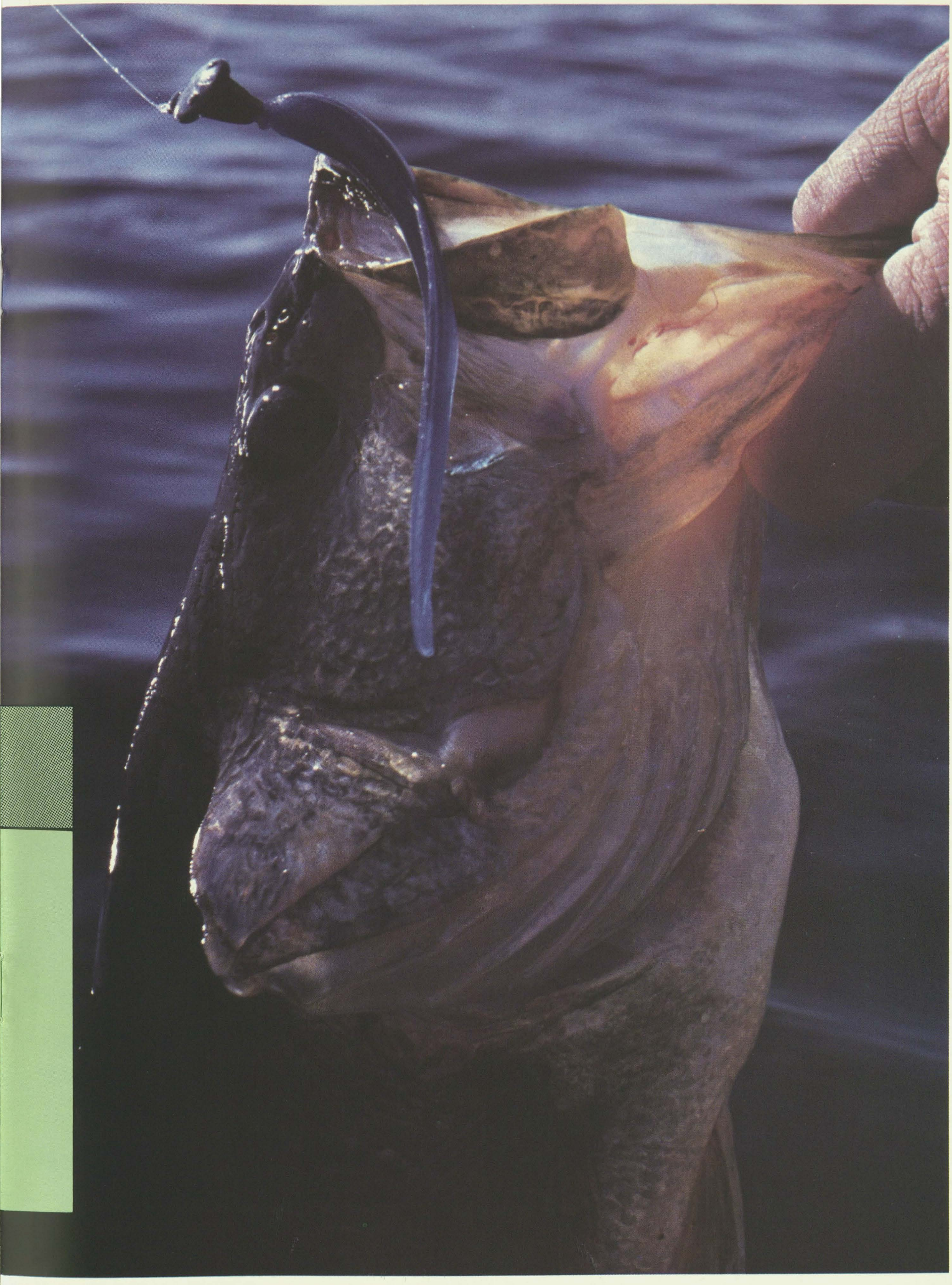
Spinner baits are deadly winter lures on Seminole. The most popular spinner bait technique is to drift across large flats (when the weather is warm and the fish are moving) and fan cast to stumps, moss beds and other cover as the boat moves with the wind. Such fishing enables anglers to work spinner baits within various types of water. Most veteran Seminole anglers use tandem-blade spinner baits in the early season. They like spinner baits with large Colorado blades when working very shallow water because the lures sink slowly and they can be fished just over cover, even at slow retrieve speeds. In slightly deeper water, they choose tandem spinner baits with small Indiana or willow-leaf blades because they sink a bit faster. Floating plastic worms and top water plugs worked over Seminole's moss beds and around flooded timber are great bigmouth takers, too.

Winter is also a top month for Seminole's striped, white and sunshine (striped bass/white bass hybrid) bass. Good numbers of these strong game fish in the two- to six-pound class are caught by largemouth anglers as they jig the drop-offs of creek channels. Stripers, whites and sunshines begin their spawning migrations up Seminole's feeder creek arms in late February. One of the best spots to catch them is below an old dam well up the Spring Creek arm just below Lake Decatur. The fish school below the dam and anglers trolling minnow-imitating plugs do very well.

Visiting anglers can locate motel accommodations and restaurants at several large fishing resorts on Seminole, in the Tallahassee area and the nearby town of Bainbridge. Guides, boats and motors can be found there. Anglers are wise to book guides and make accommodation reservations well in advance, because winter is a well-known time to tap Seminole, and possibly boat that *bass of a lifetime.*

Editor's Note: *Because Lake Seminole has portions in Florida and Georgia, the two states have a reciprocal agreement which allows licensed anglers from either state to fish by hook and line and by rod and reel methods. Florida defines the area of Lake Seminole where this regulation is in effect as the area bounded by State Road 271 on the west side; the Jim Woodruff Dam on the south side; and, on the east side, a line immediately east of the Chattahoochee Marina which runs northwest across the lake to the tip of land at the junction of the Fling and Chattahoochee rivers west of Spring Creek; and on the north by the Herman Talmadge Bridge across the Chattahoochee River.*





FOX SQUIRRELS

Better management of our forest lands may help stem this species' decline in the South.

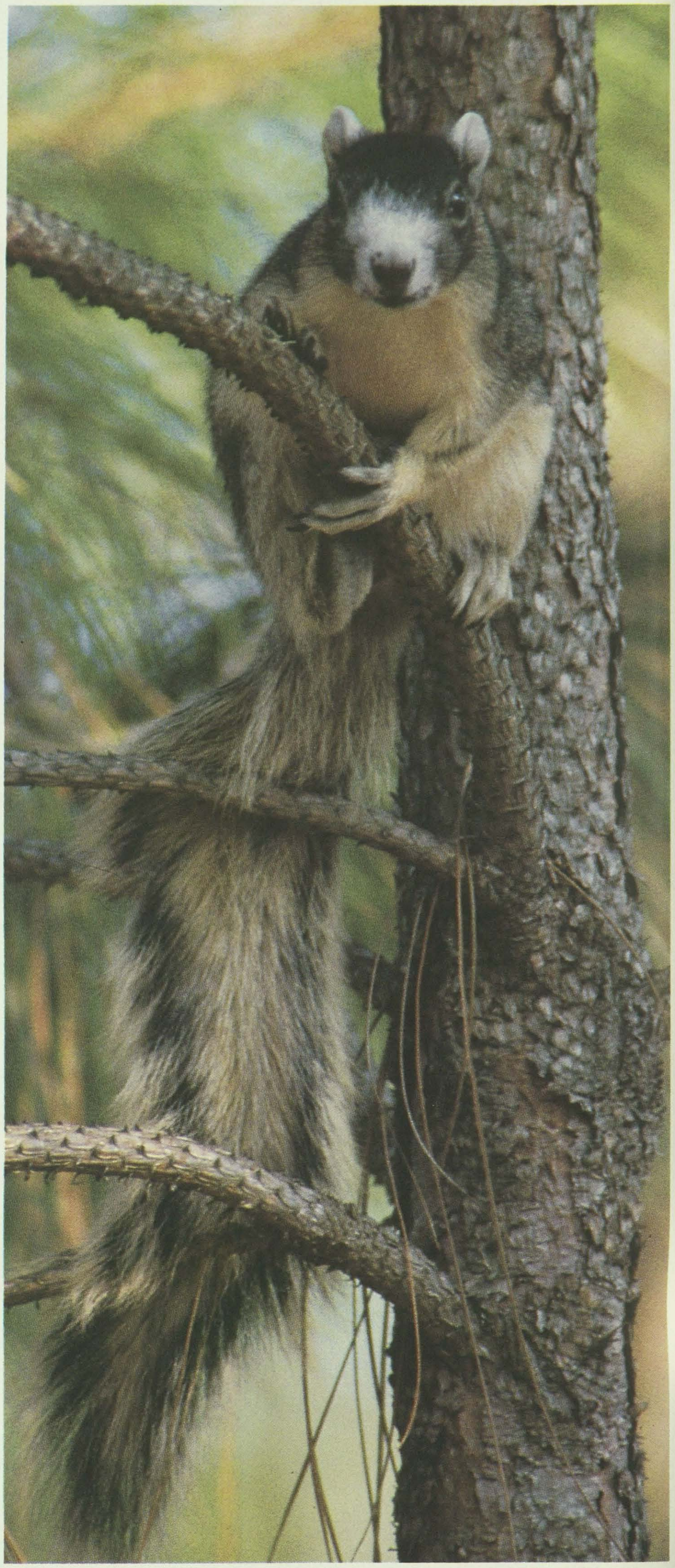
By Perry Oldenburg and Neal Eichholz

The Southeastern fox squirrel is the largest tree squirrel in North America; mature squirrels average more than two pounds in body weight. These squirrels are often colored with mixtures of gray and black and have a characteristic black mask, white nose and white ears.

Fox squirrels of the Southeast inhabit pine-oak uplands. Historically, they preferred habitats dominated by longleaf pine and turkey oak (locally known as *blackjack* or *oakjack*). In south and central Florida, fox squirrels inhabit vast acreages of slash pine-cypress woods. Fox squirrels are generally solitary and require individual home ranges of as much as 50 acres. Reported densities of fox squirrels range from 13 squirrels per square mile to over 60 squirrels per square mile.

Unlike the more arboreal gray squirrel, the fox squirrel is semi-terrestrial, spending much of its time foraging for food on the ground. The species eats pine cone seeds, acorns, nuts, fungi, bulbs, vegetative buds and other tree parts and some insects. Food resources in the squirrel's habitat are seasonal and often scarce, so each squirrel requires large foraging areas. During certain times of the year, fox squirrels forage in hardwood hammocks and hardwood wetlands adjacent to pine-oak forests.

Litter size and rearing success of fox squirrels can be correlated directly with the available food abundance, which preferably includes the pine seed crop from longleaf pine and the acorn crop from turkey oak and other oaks. Since the mast production from longleaf pine is extremely variable from year to year, fox squirrel reproduction and litter size is also variable. Oaks ▷



Warren White-Photograph

The Southeastern fox squirrel prefers pine-oak uplands in south and central Florida.

Riley, St. Marks NWR-Photograph

(usually turkey oaks) are often used as fox squirrel nest sites and dens. Mature pine trees are also used, and pine stands dense enough to permit travel from tree to tree are preferred as nesting areas. Such stands provide only a small portion of the fox squirrel's habitat requirements. Trees (usually cypress or pine) in the interior of shallow cypress swamps are also favorite nesting areas.

Litter size and success of fox squirrels can be directly correlated with the abundance of food.

The fox squirrel requires an open, park-like understory to move about freely on the ground. Historically, regular burns occurred naturally in pinelands and kept the understory open and free from dense, shrubby undergrowths. In pine forests, controlled or prescribed burns are desirable management tools used to keep the understory open. In addition, pine-oak forests maintained by regular burning have better pine cone and mast production. Fire also stimulates production of certain fungi (mushrooms), which is a favorite fox squirrel food. A few cattle also benefit fox squirrel habitat by grazing the heavy ground cover and maintaining an open condition.

Fox squirrel populations have been generally declining throughout the Southeast. The main causes of this decline are loss of natural pine-oak forests due to clear-cutting land for agriculture, residential and commercial developments and degradation of these natural forests by detrimental forestry practices.

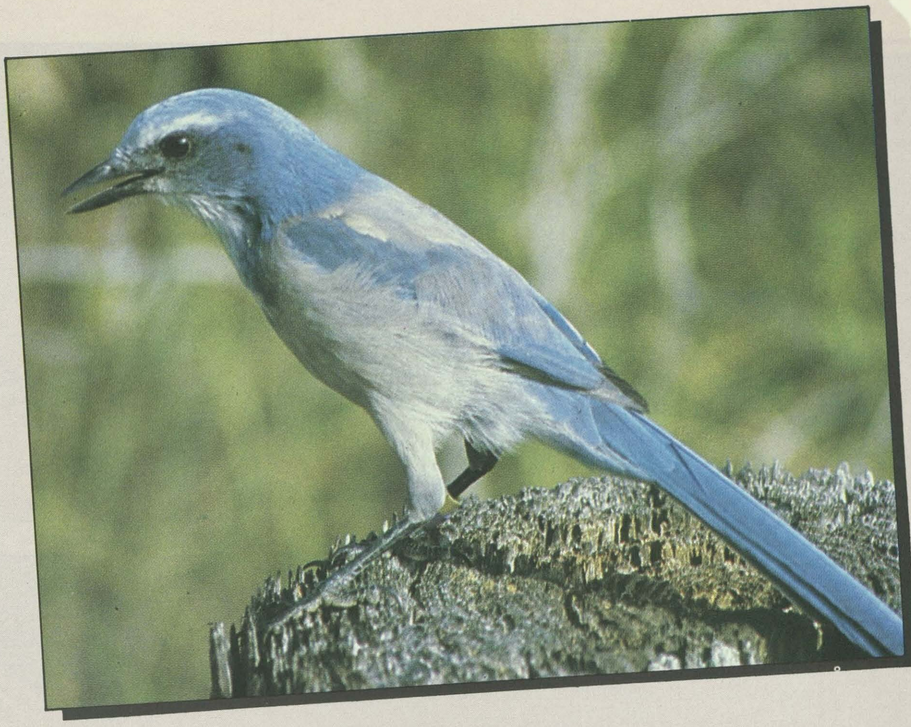
A trend in forest management away from selective cutting and toward short-rotation tree harvest, and heavy site preparation, have hit the fox squirrel hard. Newly planted pines often don't produce suitable crops of pine cones until 15 to 25 years after planting. This deprives fox squirrels of a primary food source during this time. Planted pine stands also lack mature trees for nest construction sites.

Ideally, planted pine forests should have trees widely spaced so that sunlight can penetrate to the ground cover and benefit grass production, which in turn, provides enough fine fuel for controlled burning. Additional sunlight also encourages tree growth and pine cone production. However, intensive site preparation and fire protection, as commonly practiced on commercial pine plantations, often cause the growth of a dense understory that is unsuitable as fox squirrel habitat.

A landowner or manager who wishes to maximize fox squirrel populations in pine-oak forestland should:

- Preserve natural longleaf pine-turkey oak or slash pine-cypress habitats. Any loss of these habitats will be detrimental to fox squirrels.
- If timber is to be harvested from the longleaf pine-turkey oak ridges, harvest the pines selectively, and leave at least 20 mature pines per acre. Do not eliminate any mature oaks from the area.
- Prescribe burn the pine-oak forests as often as necessary to maintain a clean, park-like, ground condition. Generally this will mean burning every one to three years, depending on the nature of the forest. Consult a wildlife biologist or a forestry extension agent for advice on proper burning schedules and techniques.
- Grazing cattle on forestland also helps maintain a clear, open ground cover needed by fox squirrels.
- Leave clumps of upland hardwoods and wetland hardwoods near the oak-pine forest, as fox squirrels forage in these areas during certain times of the year. Studies have shown, however, that they prefer pine-hardwood stands that are comprised of less than 30 percent oaks.
- If fox squirrels are to be hunted, consult a wildlife biologist to determine how much hunting pressure the fox squirrel population can sustain.

Delicate Balance



Kevin J. McGowan-Photograph

Species: Florida scrub jay
(Aphelocoma coerulescens coerulescens)
Florida Status: Threatened

The Florida scrub jay is the size of a blue jay, but without a crest and with more subtle markings. Unlike most North American birds, the scrub jay's nests often are attended by birds other than the parents of the young in those nests. Not just any scrub jay is allowed at the nest—only members of the group to which the breeding pair belongs.

Such groups are usually composed of a breeding pair and offspring from years past that stay at home, but may include step-offspring, siblings of the breeders or sometimes a totally unrelated jay. Group members cooperate not only in feeding nestlings, but also in other activities such as feeding fledglings, defending the territory and taking turns watching for predators from exposed perches.

Scrub jays are widespread residents of western North America, ranging from Oregon south into southern Mexico. Their range extends from the Pacific Ocean, east to Colorado and into central Texas. From Texas, one must travel a thousand miles farther east to find another scrub jay, and then only in certain parts of peninsular Florida. Florida scrub jays differ from their western counterparts in voice, coloring and social behavior. No western scrub jays have ever been observed feeding young at any nest other than their own. Thousands of years ago, Florida and western North America were linked by an arid zone having distinctive vegetation. Later, changing climatic patterns separated the connection and left numerous plant and animal species in Florida that were restricted to the limited patchy remnants of this ancient habitat. The scrub jay is but one such species.

In Florida, the scrub jay is found only in areas of suitable scrub habitat. The unusual mix of stunted oaks, palmettos, rosemary, woody shrubs and pines that make up the Florida scrub is restricted to certain areas of well-drained sand—old sand dunes—found either along the existing shoreline or ancient seacoasts. The scrub jay's Florida range includes a narrow strip along the East Coast, a few isolated areas along the West Coast and clusters of old sand dunes in the central peninsula, such as in the Ocala National Forest and along Florida's Central Ridge.

The fact that the scrub jay is so restricted to a rare and fragmented habitat may be a reason for the unusual social behavior it shows. Where scrub jays are found, all available scrub is occupied by breeding pairs. Scrub jays do not migrate, but remain in their home territories all year. A scrub jay must have its own territory in order to breed. Since survival of breeders is high, young jays in their first spring have practically no chance of finding a new territory and breeding on their own. By staying at home, they have a safe base from which to look for a breeding opportunity, such as when neighboring breeders die. Helping while remaining at home also helps the parents raise more young. These additional jays, as well as being relatives, may assist in increasing the family's territory to such an extent that one of the helpers can take some space for its own and breed there. So, by staying home and helping its parents, a scrub jay can increase its chances of eventually becoming a breeder.

Where large areas of scrub are available, the Florida scrub jay is a common and tame bird, but today, more jays are available to breed than have spaces to do so, and the Florida population is decreasing. The reason is the loss of suitable habitat. Since the scrub jay is so very restricted to scrub habitat, any loss of this already rare community means that fewer jays can live in Florida. Unfortunately, the well-drained soils that support the scrub are ideal for growing citrus, and these areas also are popular for urban development. Each year, more and more scrub is lost. Unless such development is slowed, Florida may lose this interesting bird.

—Kevin J. McGowan

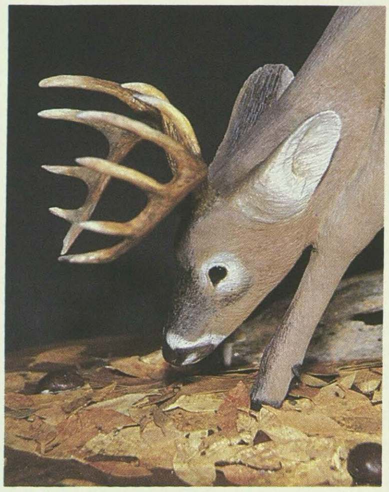
GEORGE WEYMOUTH
Sculpts Wood into Wildlife

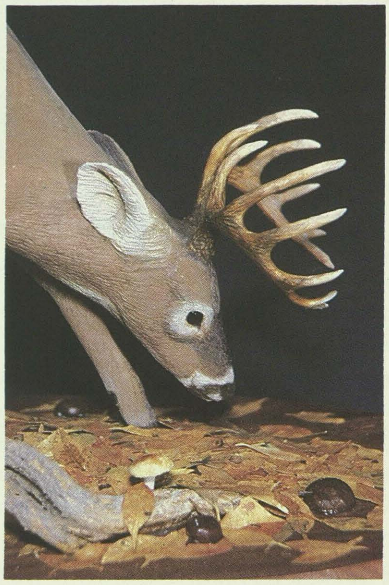
Text and Photographs
By John Waters Jr.

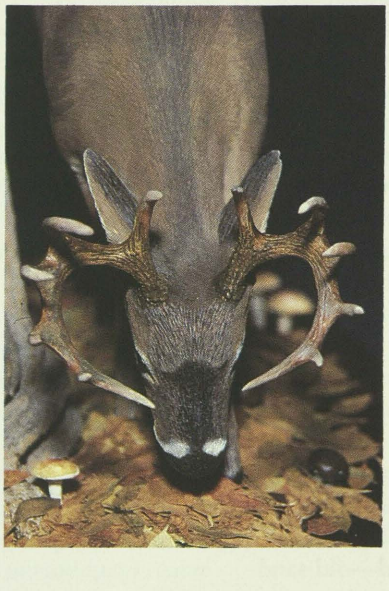
George Weymouth's wood carvings of wildlife have much more in them than wood. Each of his works also has some of Weymouth's lifetime of experiences outdoors and a considerable amount of his knowledge about wildlife.

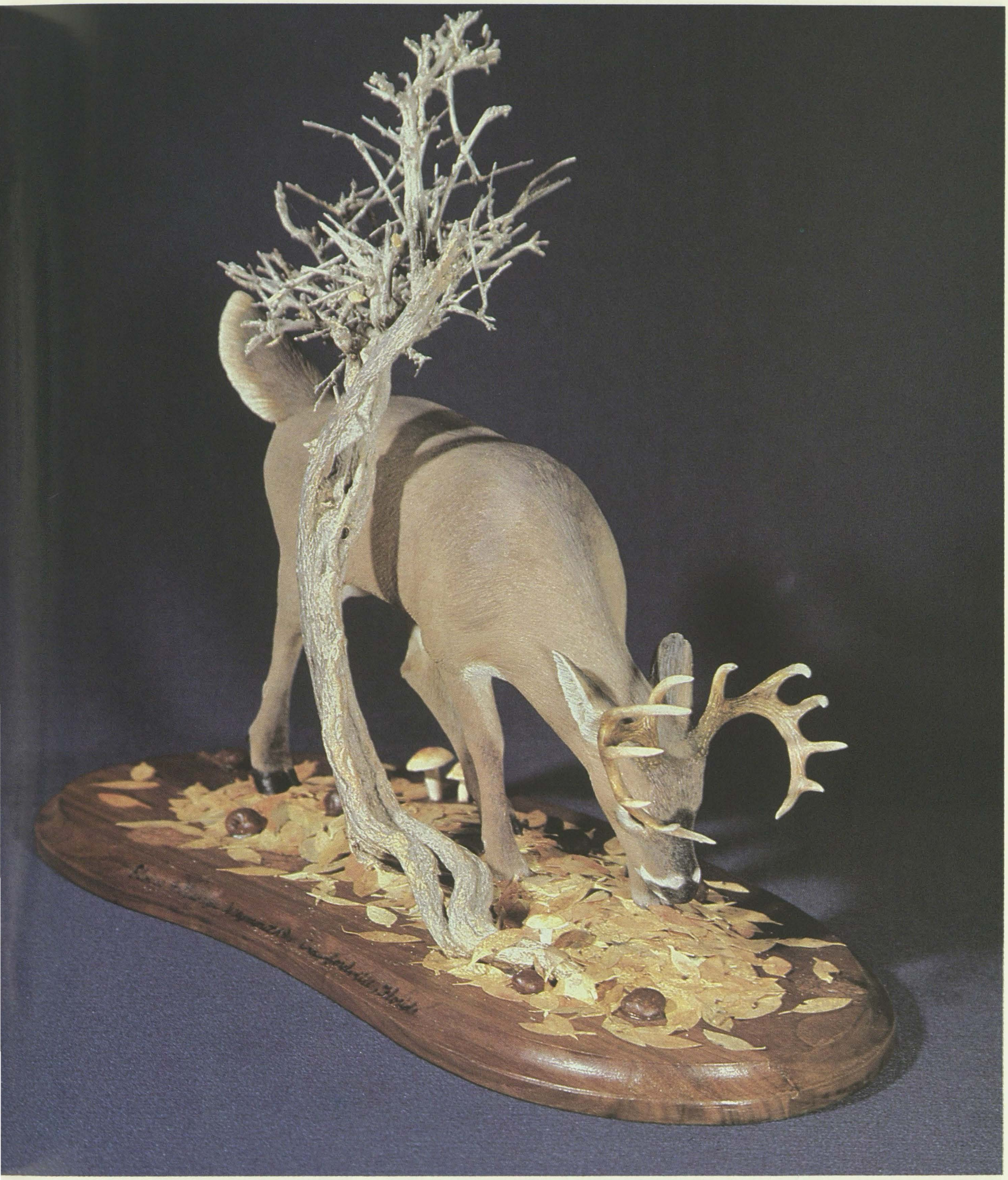
Weymouth, currently living near the small Wakulla County town of Crawfordville, has lived in Florida since 1958. He came here from Indiana, and was already a woodsman when he arrived. Since he was old enough, Weymouth has hunted, fished, canoed and walked in the woods, always curious about everything he found in the wild. It is this curiosity, perhaps, that underlies the energy he invests in each carving.

Although he sometimes uses knives to perform some of the work on a piece, most steps are done with a rotary tool, using small routers, burrs, grinders and other shaping instruments. Although the electric tool makes accuracy a little easier, there still remains the most important work of all—his artistic ability to transform a block of wood into something that appears to be real. ▷

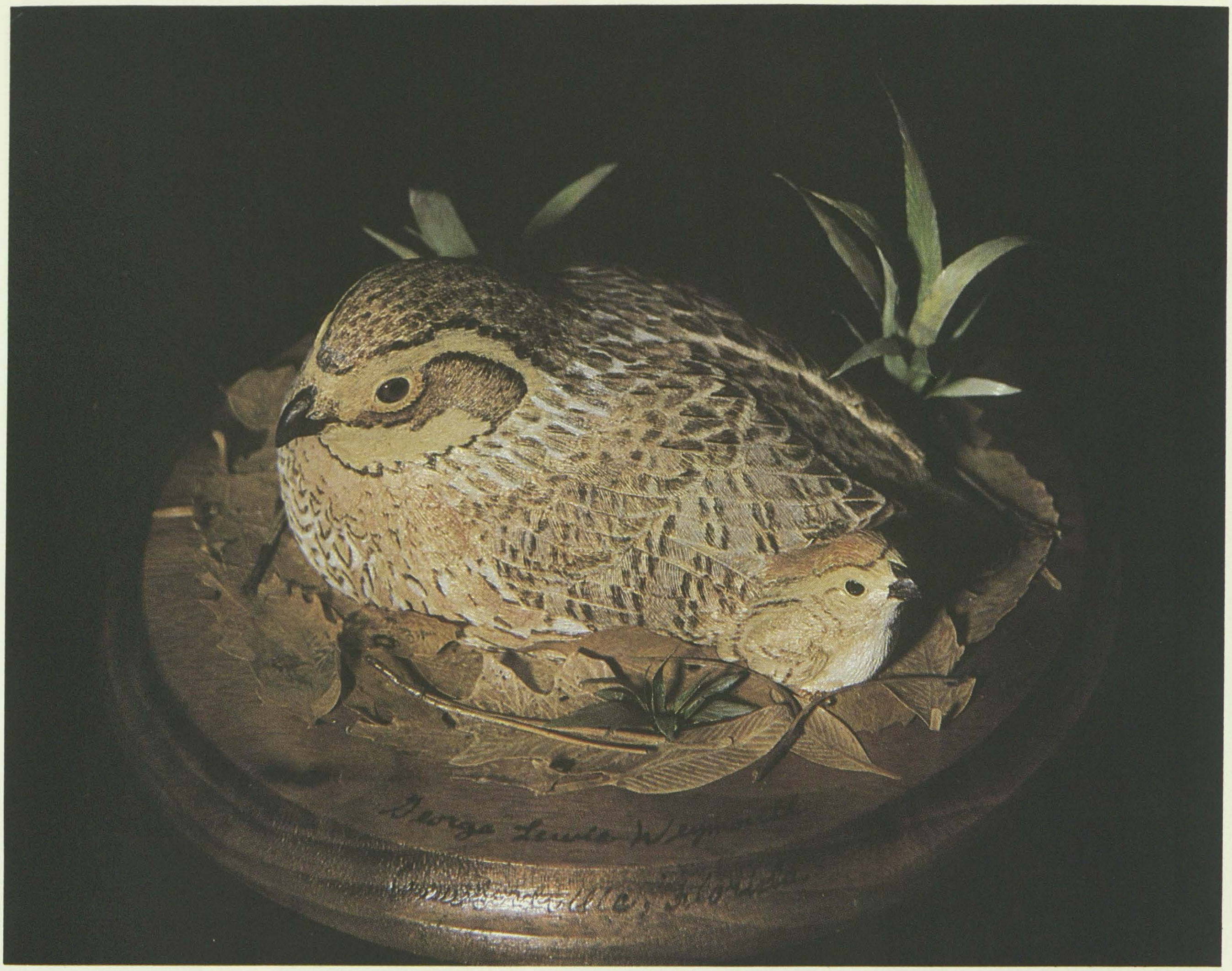




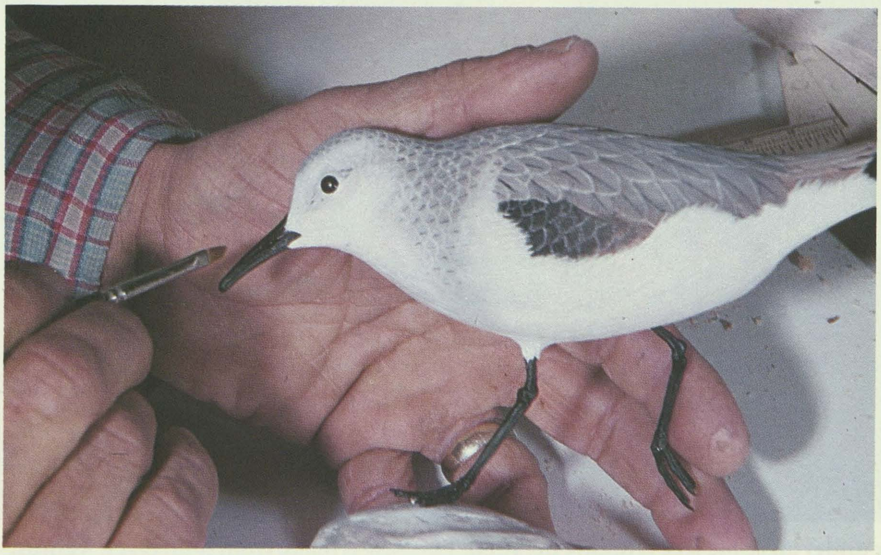


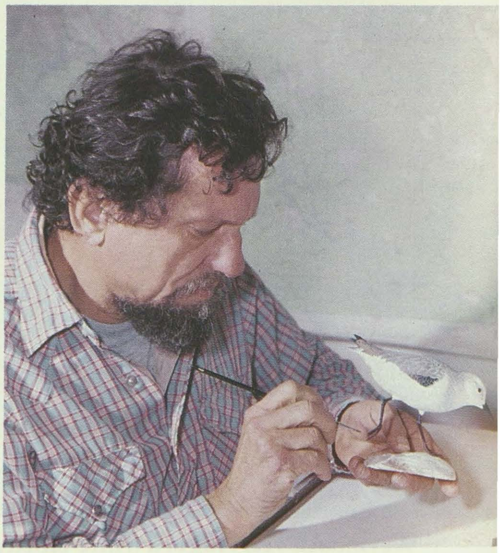


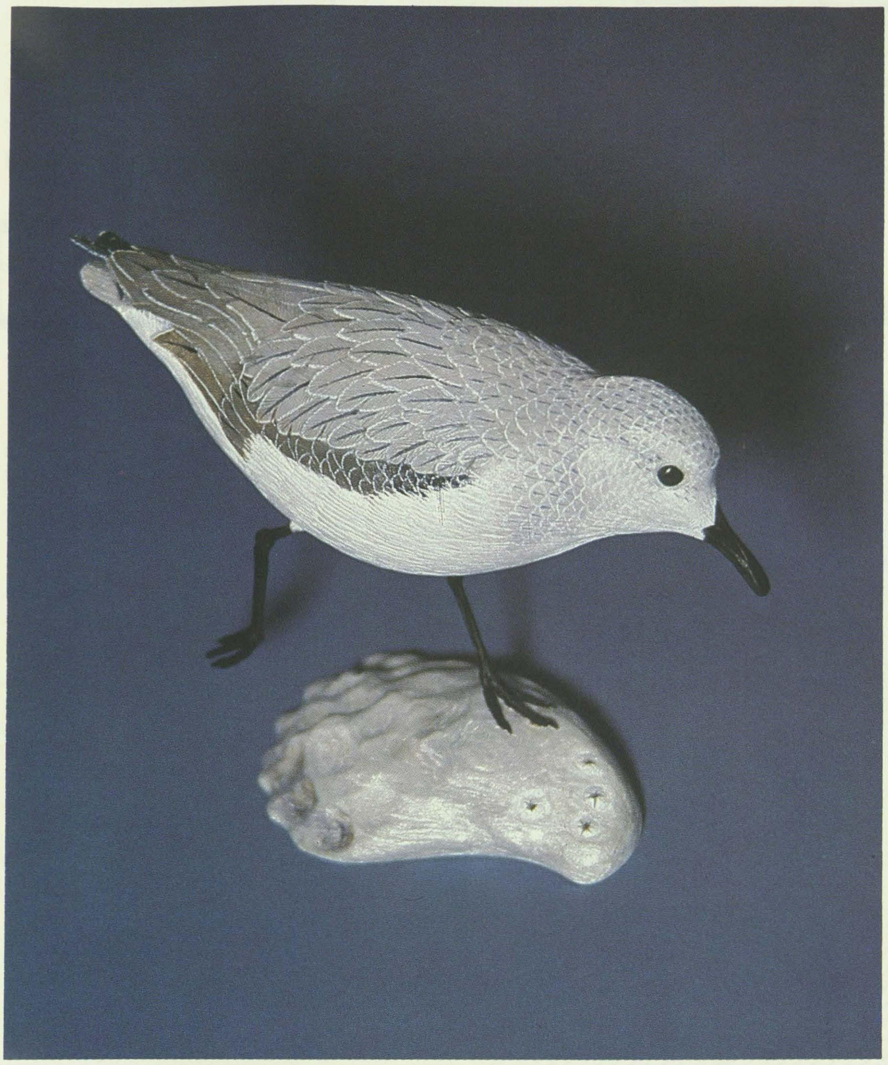
Weymouth's carving of a white-tailed deer under an apple tree is highly detailed. The base is made from solid black walnut.



Bobwhite quail hen with chicks





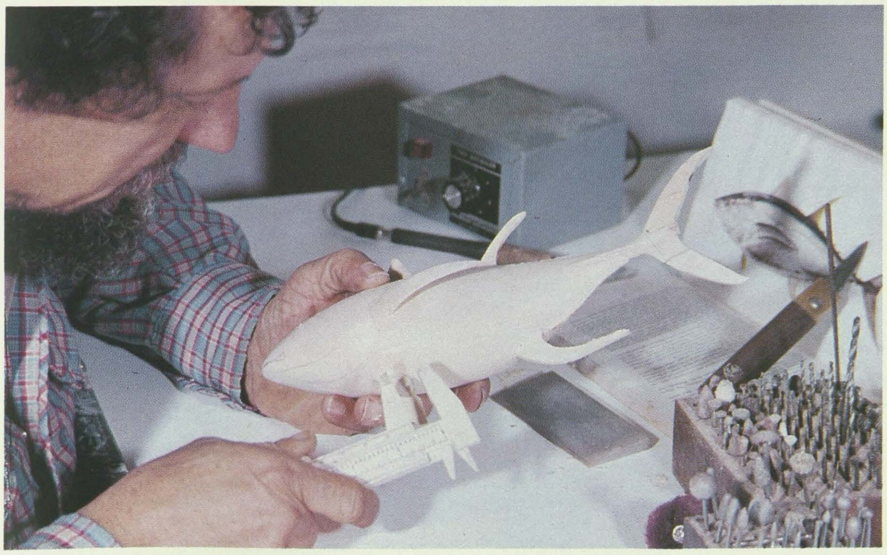


Sandpiper stepping on an oyster shell

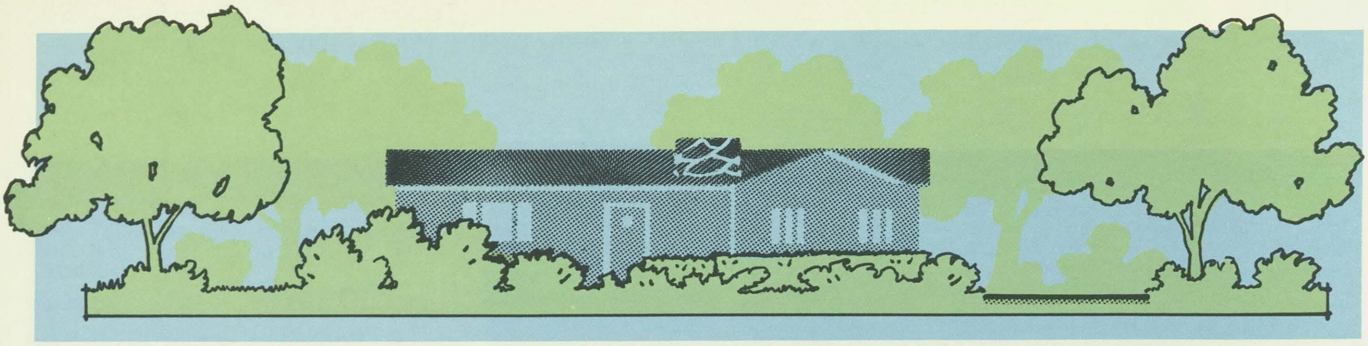
In his white-tailed deer, shown on pages 34 and 35, the detail he has captured in the work is splendid. Even the small bumps and grooves found on the antlers of a living buck are rendered in Weymouth's tiny sculpture. In his bobwhite quail, the detail of the feathers is so exquisite that you almost expect them to move in the wind, and the tiny chicks seem to imply the hen is warm.

Weymouth uses only the finest quality materials in each of his works, and sometimes he uses more than wood for forming a sculpture. The legs of the sandpiper, for example, are formed of bronze because of their thinness and the strength required for sturdiness in the finished bird.

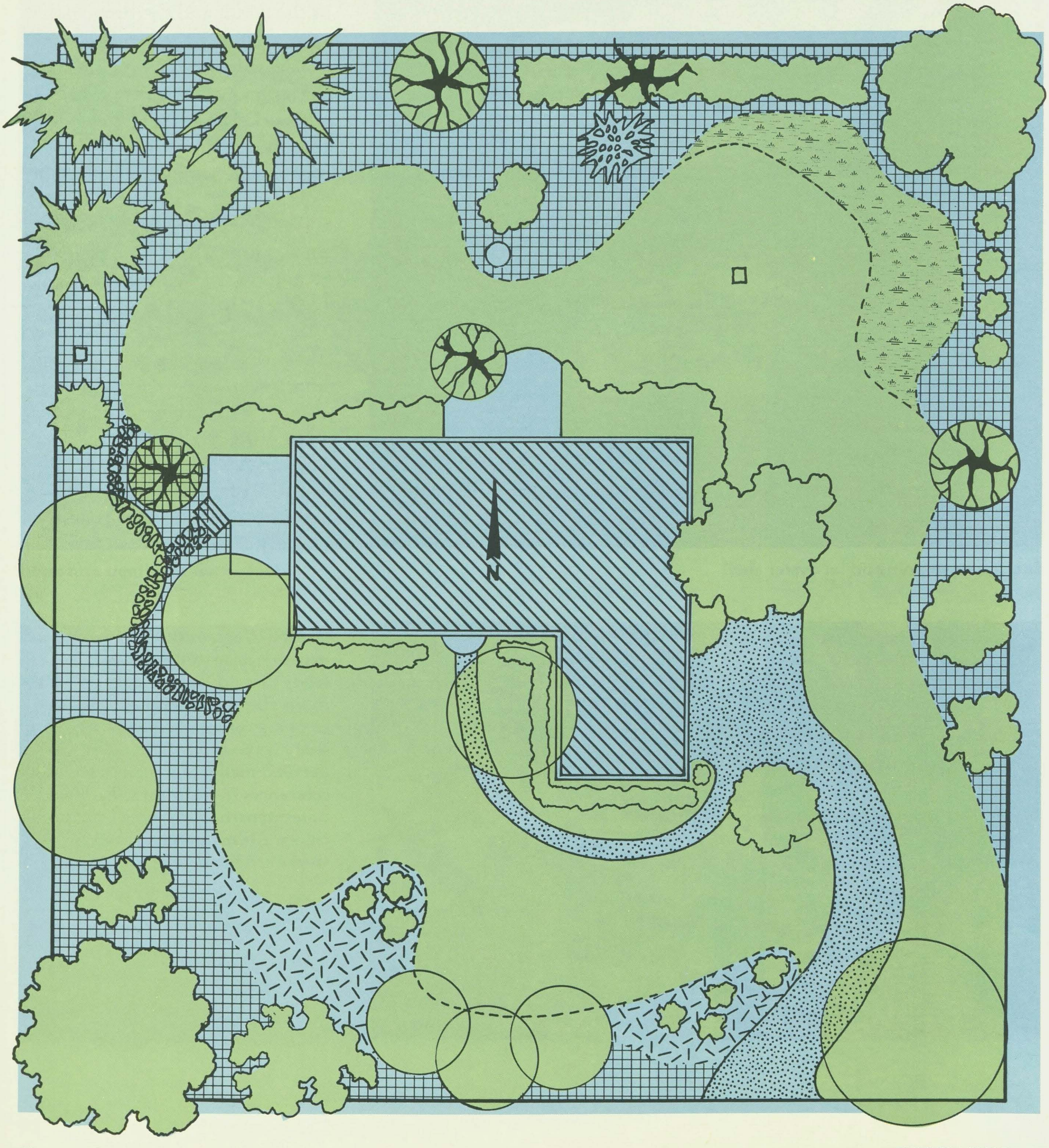
Many careful hours of shaping, measuring to scale and final finishing are required for him to complete a piece. And when he applies the last brush-stroke of paint, the work is more than "finished." Weymouth's skillfully executed works are masterpieces.



George Weymouth has a lifetime of experience outdoors and in the study of wildlife, which is reflected in his fine wood carvings. Many steps are completed before a block of wood is creatively sculpted into a detailed model of a species. He uses references in addition to his field notes to paint each piece in natural colors. All materials used in his works are the best he can obtain.



PLAN A WILDYARD



Attracting birds and other wild animals to your yard by planting wildlife habitat is a simple, satisfying family activity. If you make adequate food, water, shelter and space available, you will increase the number and variety of species that visit your yard, and you will improve your chances for observing them more closely.

HABITAT

By Susan Cerulean

Plants form part of the natural habitats animals need to feed, rest, raise their young and hide from predators. The more stable and balanced a plant community you can create in your yard, the greater the variety of wildlife you'll likely attract. The National Wildlife Federation says that attractive landscaping—which is planted with wildlife in mind—substantially increases the value of a house and lot: a $200 investment in plants can yield a three to 10 percent increase in real estate value, their study concluded. And you'll find advantages in energy and water savings, as well as increase the potential for natural insect and rodent control within your miniature habitat.

What Animals Might Live in Your Yard?

More than 1,200 major animal species live in Florida. In terms of species of wildlife, Florida is the third most diverse state in the nation! Of all this bewildering variety, which species can you expect to attract to your yard? It all depends on how well the habitat on your property duplicates the conditions which wild animals need to live.

Some animals, such as raccoons, opossums and mockingbirds, adapt well to environmental change and continue to live throughout Florida. But other species are much more regional in occurrence. White-crowned pigeons and many other semitropical species are restricted to the Florida Keys, for example, and it's unlikely you will ever find a yellow-breasted chat nesting south of Tallahassee.

By learning as much as you can about which species occur in your region of Florida, you can better plan your habitat for them. Birds and other animals usually live in the particular habitats or plant communities—such as pine flatwoods, wetlands, and hardwood hammocks—that best meet their needs. Most wildlife requires, or will use, a diversity of habitat types at different times in their daily or seasonal cycles. You can attract the widest variety of wildlife to your land by using selected native plants which simulate small areas of nearby preferred habitat types. The "edges" where these habitat types meet will probably be the areas most visited by wildlife in your neighborhood.

Four Basic Wildlife Needs

Food: All animals get food energy for survival from plants or other animals. The ideal wildlife management plan uses natural plants to supply year-round foods—from the earliest spring berries to fruits which persist through winter and the next spring.

Water: Water is essential for all wildlife and is often the factor which most limits the presence of animals on small properties. Spring and fall migrating birds are especially attracted to water during their long flights, and most frogs, toads and salamanders require standing water in which to complete parts of their life cycles.

Cover or Shelter: Breeding, nesting, hiding, sleeping, feeding and travelling are just a few of the necessary functions in an animal's life which require protective cover or shelter. Often cover plants double as food sources, and vice versa.

Space or Territory: All animals require a certain amount of space in which to mate and rear their young. On a small lot you may be able to ▷

support many kinds of breeding birds or other animals, but perhaps only a pair or two of each. Some animals' space requirements may be substantially less if food, water and cover resources are increased.

Landscaping For Wildlife

A yard can be a landscape designed with wildlife in mind. It can be visually pleasing and successful when you have managed it to combine some of the qualities of wilderness with just enough cultivation to harmonize with your house and the people who live in it. To begin your design for wildlife, follow these steps:

1. Walk around your property and sketch a base map, then outline a planting plan. Include the area covered by your house and other structures such as a garage, storage shed, pool, deck, patio, fence, sidewalk or driveway, and note the location of underground water pipes and other utilities, septic tanks, irrigation lines and sprinkler heads.

2. On your base map, or on a transparent overlay, sketch areas of sun and shade. Note how these shift during the day and through the year. Also examine your soil. Is it primarily fill dirt, sand, sandy loam, clay, topsoil or another soil type? Sketch any soil changes that occur within your property boundaries, including areas of poor drainage or erosion. Is your property affected by salt spray? If so, you will need to carefully choose plants that are salt tolerant. For example, buttonwood and seagrape are two plants with high wildlife value that thrive in south Florida coastal environments. They are ideal choices for properties close to the sea there.

3. Give thought to your family's needs and intended uses for your property. What about pets? If cats and dogs are a big part of your life, your expectations for wildlife will need to be lower. Consider human space requirements for work, play, entertainment, access and traffic patterns, trash collection, security and privacy. Think realistically about how much and what type of space you will need for each activity. Sketch these areas onto another transparent overlay over your base map.

4. Now list the most abundant trees, shrubs and herbaceous plants already growing in your yard. You may want to note their age, size, health, whether they are exotic or native to your region, their value in energy conservation, and any special maintenance requirements. Notice how the vegetation in your yard interacts with the physical characteristics of the site to form habitats. For example, even the smallest lot may have a dry sunny lawn growing on construction fill, and a cooler area shaded by a large tree, perhaps with a richer soil. Each existing habitat presents different opportunities and constraints in your overall plan. Take a look at natural plant communities around your area. Observe how plants of different height and form grow near one another. You'll want to use these proven successes as models for your own yard.

5. Begin a list of wildlife species that visit your property. How well do your habitats provide food, water and cover for them? Are native seed-bearing plants available to produce food on a continuous basis? Does your present landscape provide adequate cover and safe travel corridors for small animals and birds? Mammals, especially, require connected shrub and hedge rows or larger wooded areas to move about.

Once you have studied your property, you will be ready to prepare one drawing to guide your landscaping efforts through the years to come. Decide whether you are planning major landscape alterations or simply modifying an acceptable yard habitat. Arrange your plan into a reasonable time schedule. Don't try to do everything at once—decide what you can do each year for the next five or so years.

Bare Lot and Major

1. Begin by framing your property with a backdrop of native trees. This will maximize wildlife benefits and most effectively screen you from neighboring properties. Plant a variety of species; some evergreen, some deciduous. They will simulate a forest canopy and provide nesting sites, protective cover and food for small mammals and birds. Plant deciduous trees on the west side of your house for summer shade.

2. Create an understory by planting smaller flowering or orchard trees in clusters near the tall trees. Stagger the plants at recommended spacing intervals and avoid, as much as possible, planting in lines or rows. When planting shrubbery borders, mix several varieties having varying shapes, heights and densities to create a greater selection of bird nest sites. Try to choose shrubs that fruit at different times of the year for a continuous food supply.

3. Next, surround the smaller trees

Modifying an Existing Landscape

1. Surround lawn areas with trees and shrubs. Plant small shrubs and ground covers around solitary trees. Use irregular borders to create more wildlife edge.
2. Mulch trees and shrubs with leaf litter, lawn clippings, tree trimmings or weed chips. Melaleuca mulch is also very effective. Mulches are a rich food source for ground foragers like towhees and thrushes and they provide cover for small mammals, reptiles and amphibians, and also enrich your soil. Leave a few patches of bare soil for birds that "dust."
3. If your yard is already filled with exotic plant species, as is often the case in south Florida, proceed slowly. Ideally, you should replace exotic plants with native species. Brazilian pepper (also erroneously known as "Florida holly"), melaleuca and Australian pine should be eliminated as soon as possible.

Landscape Alterations

with masses of shrubs, brambles or ground covers. These will provide protective areas for ground-feeding birds and mammals.

4. Plant shrubs and ground covers around the foundation of your house. Be careful not to block special views.
5. Lawns can be very labor and energy intensive, but small lawns are pleasant to have. When you identify areas where you want grass, consider laying sod. Follow site preparation recommendations from your local Cooperative Extension Office for best results.

Maintenance Ideas For all Landscapes

Lawns: Convert some of your open lawn to a "meadow." Mow prudently—just two summer mowings will control tree and shrub invasions in your meadow. Check local mowing ordinances, however. Wildflowers, butterflies and bees can flourish in even a small wild meadow.

Hedges: Select and encourage a variety of plant heights, but maintain a minimum of 3½- to 8-foot high hedges. The best hedges for bird cover and nesting are evergreens having dense or thorny branches. Blackberries are also ideal. Remove large tree species that sprout and grow in your hedges.

Pruning: Birds prefer unclipped, informal hedges. Remove old growth selectively to assure that the plants don't overcrowd one another. Avoid pruning during the nesting season. Early flowering shrubs that bloom from buds formed during the previous summer should be selectively pruned or cut back only every few years.

Small Trees: Be sure orchard and flowering trees receive full sun. Check light requirements for the varieties and species you have. Dogwoods, for example, prefer light shade. Avoid using toxic sprays. Instead, choose fruit varieties that will thrive in your area without them. Don't prune all the dead wood and be sure to mulch trees well. Leave tent caterpillar nests in your wild fruit trees—yellow-billed cuckoos can control them for you. If caterpillars really get out of hand, spray carefully with *Bacillus thuringensis*, a biological pesticide.

Large Forest Trees: Control seedlings beneath large trees, but leave a few young replacements. Allow one or two selected vines to climb each tree. You may want to mow once a year in your forested area. Maintain standing dead trees and limbs that don't pose a safety hazard to your house or people in your yard.

Paths: Add mulched or stonework walkways to your landscape. Paths can make visiting your yard more enjoyable when vegetation is wet with rain or morning dew, and they can provide a familiar route through your backyard habitat.

As Florida's human population increases, and more and more green space is urbanized or changed to other uses, wild birds and other animals are squeezed out of the habitat they require to survive. There is an ever-increasing need to manage not only Florida's existing forests and large land holdings for wildlife, but also to manage developed land—housing subdivisions, small city parks, larger county parks and even our highway roadsides. No matter where you live in Florida, you can probably make habitat improvements which will benefit your wildlife neighbors and bring you and your family hours of pleasure.

1947

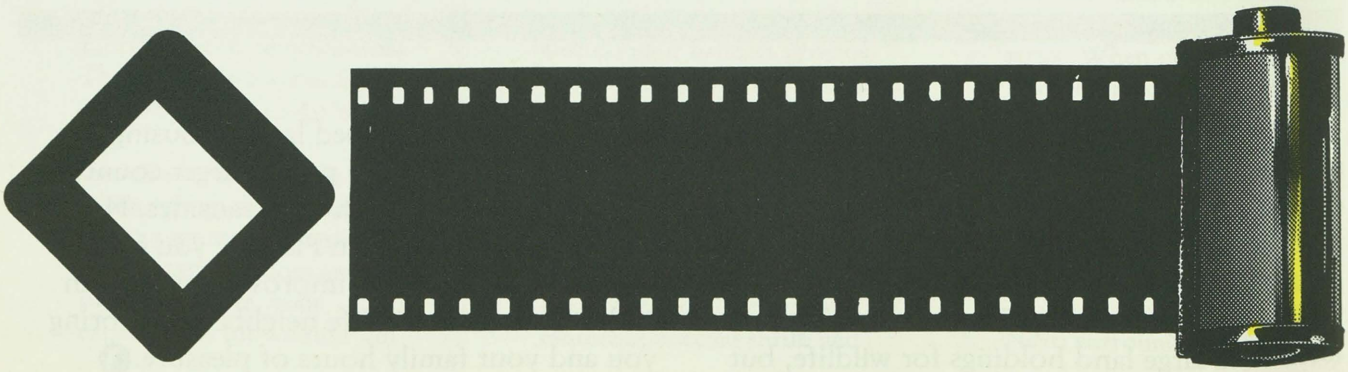
1987

PHOTOGRAPHY CONTEST

FLORIDA WILDLIFE's 1987 wildlife photography contest is officially open, and the staff invites you to show us your best photographs from your Florida field trips. Official rules and entry forms are printed here for your convenience, and the contest is open until June 30, 1987.

As FLORIDA WILDLIFE celebrates 40 years of continuous publication during 1987, we hope you will join us in making this year's contest the best one ever. The potential for taking excellent quality nature photographs is certainly higher than ever, as during the years FLORIDA WILDLIFE has been published, cameras, films and printing technologies have been considerably improved.

With springtime just around the corner, some of the nicest days to be outdoors in Florida are near. Florida has many places where wildlife photographs can be taken, and many wildlife species live here. So, why not load your camera with color slide film, try to capture a perfect picture and share it with us?



CELEBRATING ★ 1987 ★ WILDLIFE YEARS ★ 1947 ★ 40

THESE ARE THE RULES:

1. Only original 35mm color slides and 2 ¼" x 2 ¼" color (positive) transparencies are eligible. Please do not send prints, negatives or duplicate slides.

2. Each single photograph entered must be accompanied by a completed, legible Official Entry Form. Photocopies of the Official Entry Form will be accepted; however, signatures must be in original form on each one. Photocopies of signatures will not be accepted. Photographs showing people (Category D only) must be accompanied by a completed Model Release Form.

3. Up to three (3) individual photographs may be entered in any one or all of the 1987 contest categories, but each single photograph may be entered in only one category. Entry forms must be labeled "A, B, C or D" to show in which category each photograph is being entered. The 1987 categories are as follows:

Category A - Wild birds
Category B - Wild mammals
Category C - Wild animals other than birds and mammals
Category D - Florida's natural environment and human interaction with this environment; including hunting, fishing and other ethical uses of Florida's natural resources. Only Category D may show people or man-made objects.

4. All entries must be accompanied by a self-addressed, stamped envelope for return. Send one return envelope for each category entered. Multiple entries in a single category which are sent at the same time need only one return envelope. Do not send money—attach sufficient postage stamps to the return envelope, please. Entries will be returned after judging.

5. Each entry must be attached to a 3" x 5" card (such as a standard index card) showing the photographer's name, mailing address and Social Security number on the card.

6. Only photographs taken in Florida are eligible. Domestic or exotic species are not eligible. Employees of the Florida Game and Fresh Water Fish Commission are not eligible.

7. Only photographs which have never been published in a magazine are eligible.

8. Entrants are responsible for notifying FLORIDA WILDLIFE of any change of their mailing address prior to the date entries are returned.

9. Entries must be mailed to FLORIDA WILDLIFE PHOTO CONTEST, 620 South Meridian Street, Tallahassee, Florida 32399-1600 and be received by June 30, 1987 to be considered. Any entry not meeting all the rules will be ineligible.

10. Decisions of the judges will be final.

Official Entry Form

CATEGORY: (Circle One) A, B, C, D

Please Type or Print Plainly

Photographer: ______________________

Mailing Address: ______________________

City: ______________________

State: ______ **ZIP:** ______ **Number of Entries:** ______

Photograph No. 1 was taken in ______________ **County**
and is ______________________

Photograph No. 2 was taken in ______________ **County**
and is ______________________

Photograph No. 3 was taken in ______________ **County**
and is ______________________

I certify that I am the photographer and owner of these entries (photographs) and that all entries were taken in Florida, and I hereby give the Florida Game and Fresh Water Fish Commission my permission to publish my entries in *Florida Wildlife* in accordance with the rules published in the January-February 1987 issue.

Signed: ______________________ **(Entrant)**

Social Security Number: ______________________

Model Release

I, ______________________ (model's name), for good and valuable consideration, do hereby give ______________________ (photographer's name) and *Florida Wildlife*, an information and educational periodical magazine published by the Florida Game and Fresh Water Fish Commission, an irrevocable right to use my name (and any fictional name) and photograph for publication in *Florida Wildlife*. I have read this release and fully understand its contents.

I affirm that I am 18 years of age or older.

Witness Signature: ______________________ Signed (Model): ______________________

Address: ______________________ Address: ______________________

______________________ ______________________

Date: ______________________

Guardian's Consent
for Minor Models

I am the parent or legal guardian of the above-named minor and hereby approve the foregoing Model Release and consent to the use of said minor's name and photograph as aforesaid.

I affirm that I have the legal right to issue such consent.

Witness Signature: ______________________ Signed (Guardian): ______________________

Address: ______________________ Address: ______________________

______________________ ______________________

Date: ______________________

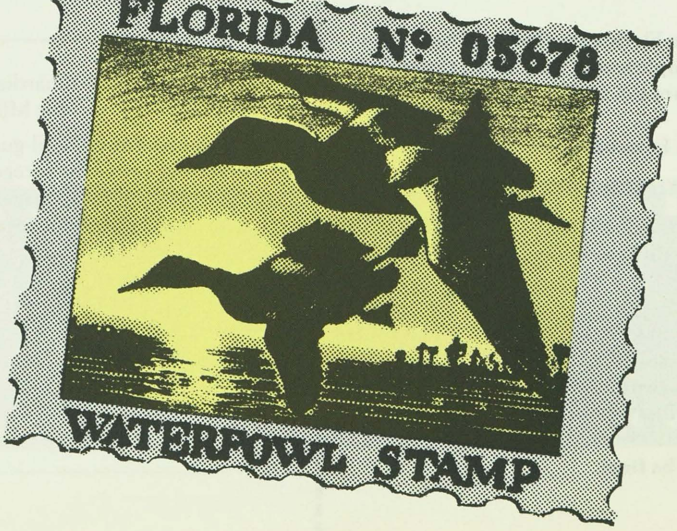
It's The Law

By Major Kyle Hill

Do I have to have a Wildlife Management Area Stamp just to accompany a person who is hunting on a wildlife management area?

The rule varies depending on which wildlife management area (WMA) you wish to enter. On most wildlife management areas a WMA Stamp is required for all persons (except those who are exempt from licensing requirements because of age or disability) in order to hunt, trap or be in possession of a gun, trap or other device for taking wildlife or furbearing animals. There are certain management areas (J.W. Corbett and Cecil M. Webb) which require any persons participating in any activity in those areas be in possession of a WMA Stamp. Also, there are special, daily and seasonal stamps that are mandatory on several WMAs. On most areas, however, if you are not in possession of a gun and do not intend to hunt, it is permissible to enter an area or to accompany a lawfully licensed hunter into an area without a WMA Stamp.

Wildlife officers often look for obvious "clues" when determining whether a person is hunting or not. For example, if a person claims not to be hunting but is dressed in camouflage clothing, has a big knife strapped to his side along with a plastic container of ammunition that just *happens* to fit an extra gun in the vehicle, he will not be considered to be just along for the ride. If you are planning *not* to hunt, do not give the impression you are hunting by being equipped for hunting. It just makes a wildlife officer's job more difficult, and it could also inconvenience you.



Hunter Education News

By Captain Ed Tyer

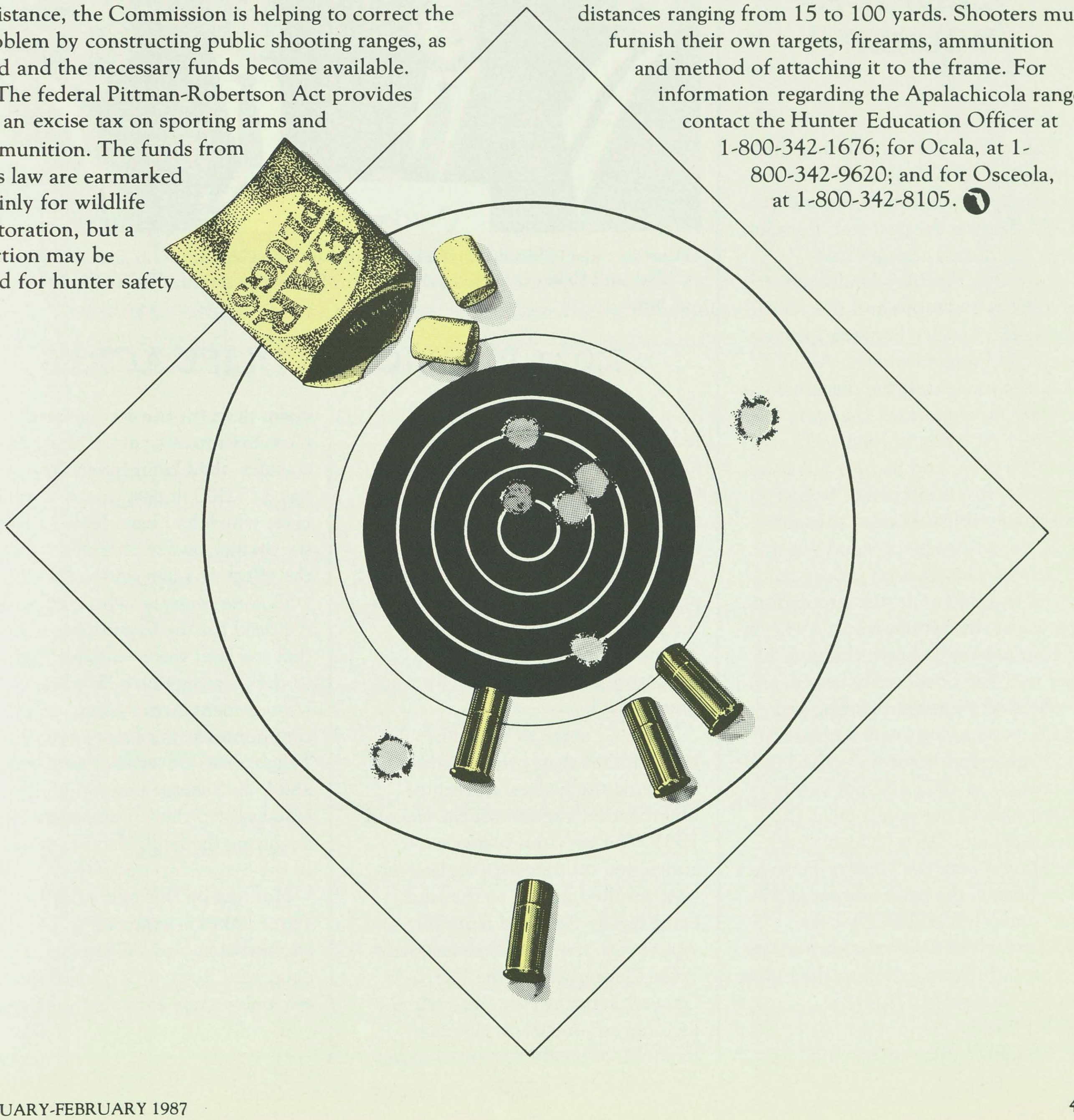
Hunter Education Coordinator

In times past, it wasn't a problem to find a place to shoot. You only needed to drive to the outskirts of town and down a dirt road to find a safe place to practice your shooting skills. But don't try that now. What used to be considered "open land" hardly exists in Florida any more, and now, even the formal shooting ranges are feeling the pinch of human population growth.

When many shooting ranges were built, they were located in the "middle of nowhere," but now, what used to be "nowhere," is often populated. With federal assistance, the Commission is helping to correct the problem by constructing public shooting ranges, as land and the necessary funds become available.

The federal Pittman-Robertson Act provides for an excise tax on sporting arms and ammunition. The funds from this law are earmarked mainly for wildlife restoration, but a portion may be used for hunter safety training, including construction of shooting ranges. The Commission has recently completed its third public range in the state. The U.S. Forest Service cooperated in these projects by providing range sites in all three of Florida's national forests. Ranges are now located in the Apalachicola, Osceola and the Ocala national forests.

All three ranges are open to the public during daylight hours and no fee is charged. Ranges are used at the user's own risk and no supervision is provided. Rules are posted and release forms are available at the ranges. These are combination rifle/pistol ranges with target distances ranging from 15 to 100 yards. Shooters must furnish their own targets, firearms, ammunition and method of attaching it to the frame. For information regarding the Apalachicola range contact the Hunter Education Officer at 1-800-342-1676; for Ocala, at 1-800-342-9620; and for Osceola, at 1-800-342-8105.



Conservation Update

By John Waters Jr.

1947
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40 YEARS OF FLORIDA WILDLIFE

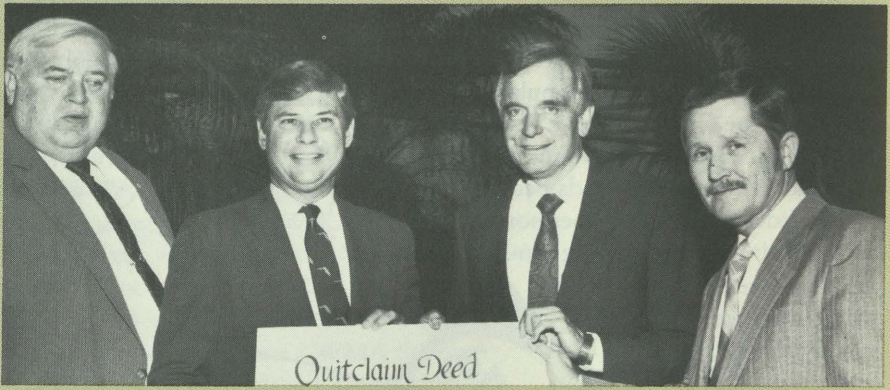
FLORIDA WILDLIFE magazine will reach its 40th year of continuous publication in June of 1987. During the past four decades, very significant changes have occurred in Florida's landscape, wildlife populations and the ecological balance between humans and wild living resources. Also during those years, the magazine has undergone significant changes.

The first issue, in June 1947, ran only 16 pages and had no full color. Initially, it was circulated free to schools, public libraries, museums, newspapers, magazines and youth, civic and conservation groups in order to build an initial circulation. However, by September of 1949, it was necessary to begin charging $1 per year for 12 monthly issues.

As time went on, printing and other production costs increased, and subscription rates also had to be increased in 1952 ($2 per year); 1964 ($2.50 per year); 1972 ($3 per year) and 1976 ($5 per year). Beginning with the January-February 1984 issue, the price was set at $7 per year—but still below cost, because of the Commission's desire to provide information to the public in the form of FLORIDA WILDLIFE.

To help reduce costs, paid advertising space was sold from about 1950 through 1957; however, the Commission later decided that FLORIDA WILDLIFE should be free of commercialism, and since then, no advertising space has been sold.

It was not until the January 1958 issue that FLORIDA WILDLIFE had full color, and then, it was only on the cover. In November-December 1976, the magazine was changed from a 32-page monthly format to a 52-page bimonthly. When that change was made, full-color printing of inside pages became a regular part of every issue for the first time.



John Waters Jr.-Photograph

(Left to right) Donald Layfield, Governor Bob Graham, U.S. Senator Lawton Chiles and Executive Director Robert M. Brantly transfer title to 2,021 acreas of land.

2,021 PUBLIC WILDLIFE ACRES

In a land title transfer from the federal government to the Florida Game and Fresh Water Fish Commission, 2,021 acres of land in Osceola County have been added to the Three Lakes Wildlife Management Area. The land will provide additional opportunities to the public for hunting, camping, fishing and nature observation, Executive Director Robert M. Brantly said.

The land came to be public land—rather than private land—following the Federal Bureau of Investigation's seizure of the tract in 1981. The previous owner's conviction on narcotics violations later resulted in title to the land being legally removed from him and vested with the federal government.

On December 17, the U.S. General Services Administration's regional administrator, Donald Layfield, officially presented a quit claim deed for the acreage to the Commission. As part of the title transfer, the Commission agreed to pay $25,000 in past due real estate taxes which had been levied against the former owner, thereby having the effect of a lien on the land.

Colonel Brantly, who accepted the deed for the Commission, noted that the land was a valuable addition to the Commission's Wildlife Management Area system. In official ceremonies at the State Capitol in Tallahassee, Governor Bob Graham and U.S. Senator Lawton Chiles, who assisted the Commission in acquiring the land, also participated in the ownership transfer.

Hunting on this new addition to Three Lakes is expected to be allowed next year. White-tailed deer, wild hogs, turkeys and quail are major game animals found there.

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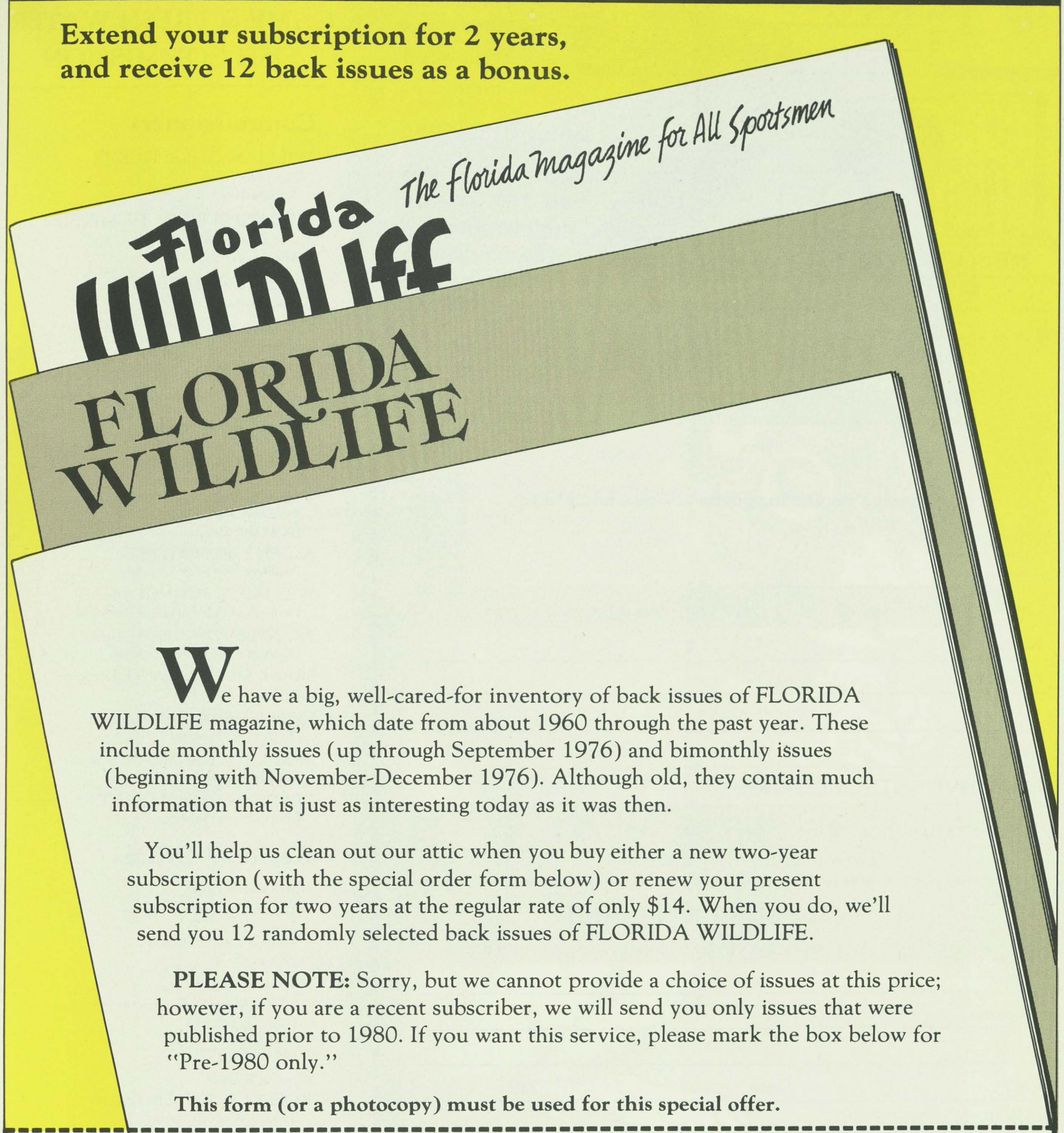
Extend your subscription for 2 years, and receive 12 back issues as a bonus.


The Florida Magazine for All Sportsmen
Florida WILDLIFE
FLORIDA WILDLIFE

We have a big, well-cared-for inventory of back issues of FLORIDA WILDLIFE magazine, which date from about 1960 through the past year. These include monthly issues (up through September 1976) and bimonthly issues (beginning with November-December 1976). Although old, they contain much information that is just as interesting today as it was then.

You'll help us clean out our attic when you buy either a new two-year subscription (with the special order form below) or renew your present subscription for two years at the regular rate of only $14. When you do, we'll send you 12 randomly selected back issues of FLORIDA WILDLIFE.

PLEASE NOTE: Sorry, but we cannot provide a choice of issues at this price; however, if you are a recent subscriber, we will send you only issues that were published prior to 1980. If you want this service, please mark the box below for "Pre-1980 only."

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WILDLIFE ALERT!

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This publication was produced at an annual cost of $46,400, or $1.56 per copy, to provide information to the public about wildlife resources and their conservation. Subscription revenues defray a substantial portion of the above-listed cost of magazine production.

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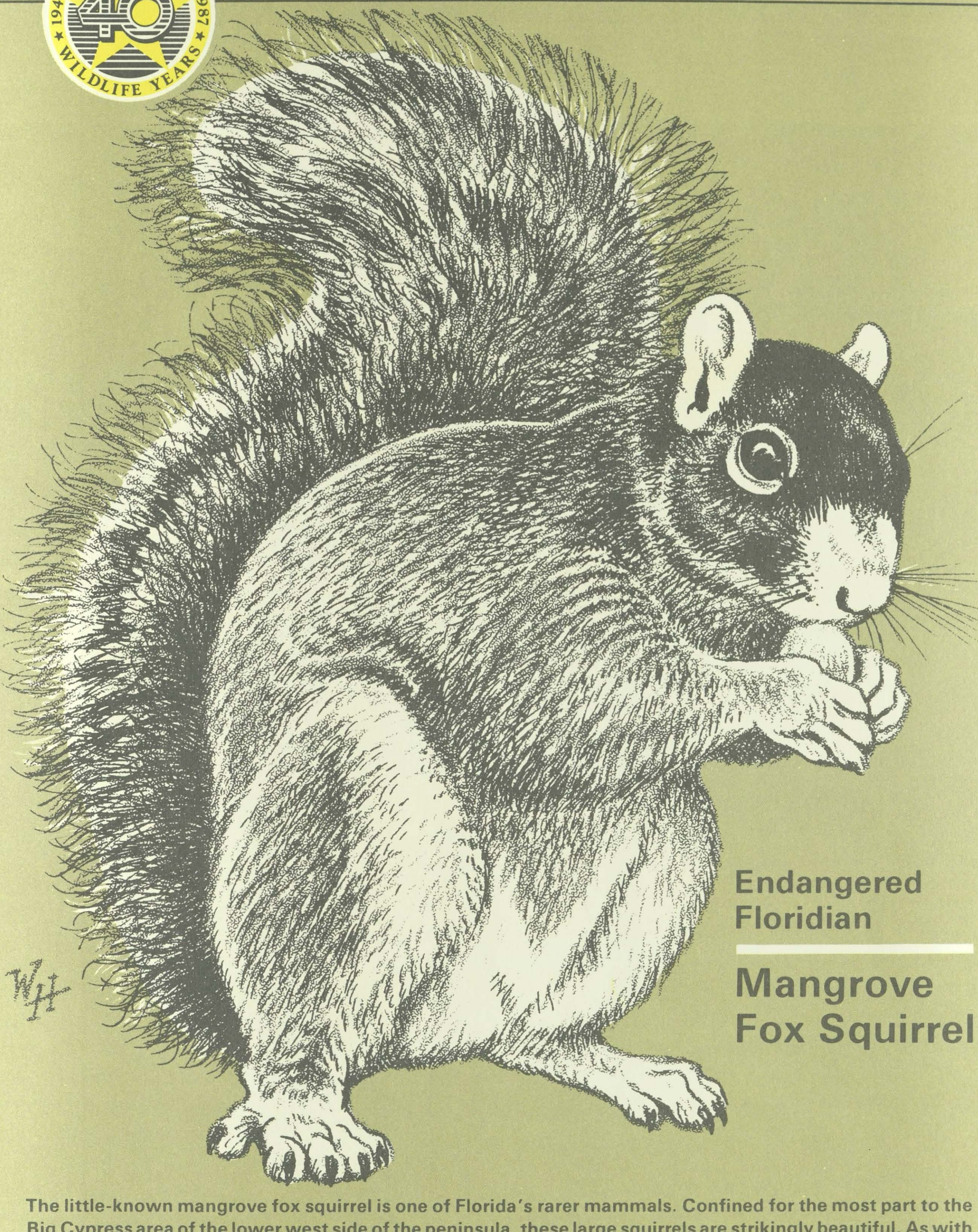

Endangered Floridian

Mangrove Fox Squirrel

The little-known mangrove fox squirrel is one of Florida's rarer mammals. Confined for the most part to the Big Cypress area of the lower west side of the peninsula, these large squirrels are strikingly beautiful. As with the southern fox squirrel found elsewhere in the state, the color pattern may differ greatly from one individual to another but consists basically of hues of orange and black. Whatever the pelage variation, however, a telltale mark of the subspecies is the white coloration of ears and muzzle. Trapped, in a sense, by their demanding habitat requirement of mature forests, they occupy the cypress and mangrove swamps where there are scattered stands of large pines or mature tropical hardwoods. Because of the inherent scarcity of suitable nesting hollows, the squirrels commonly build nests of moss or leaves on open branches using shredded bark, grasses and other materials for a soft inner lining.

Wallace Hughes-Artwork

From the September-October 1978 issue of FLORIDA WILDLIFE